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ANNUAL REPORTS

OF THE

Navy Department

FOR THE FISCAL YEAR

1912

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ANNUAL REPORT

OF THE

SECRETARY OF THE NAVY.

NAVY DEPARTMENT,
Washington, D. C., November 20, 1912.

To the PRESIDENT:

SIR: I have the honor to submit herewith the annual report of this department for the fiscal year ended June 30, 1912, including operations to date.

ADMINISTRATION.

I am thoroughly convinced after a trial extending over three years that efficient administration of the Navy can not be accomplished by a Secretary without some sort of a board or council made up of expert advisers.

THE AIDS.

As the Secretary of the Navy comes into office unequipped to judge complex questions which require technical knowledge, it is proper when a matter comes to him which affects more than one bureau that he should send for his advisers and get the benefit of their knowledge and judgment on the matter.

He should be in a position to obtain expeditiously expert knowledge on matters of general policy and should have around him responsible advisers trained in the duties and requirements of the Navy and known to the public as well as to the Navy.

Thorough study resulted in the conclusion that there were four logical divisions in the Navy Department: Operations of the fleet, personnel, material, and inspections. With your authority four officers of experience and judgment were carefully selected as heads of these divisions and as advisory aids to the Secretary. They are without executive authority, but have a supervisory function and serve in an advisory capacity.

Through the aids the Secretary of the Navy receives expert responsible advice and is kept informed daily of what is going on in the department. They also serve in coordinating the work of the various bureaus of the department.

COORDINATED WORK OF DIVISIONS.

In cases where circumstances have made it necessary to expedite the dispatch of ships and men to protect the Government interests, to mobilize fleets, or to put through with accuracy of detail any operation requiring the simultaneous and coordinated efforts of the several divisions of the department, the present organization has proved itself reliable and efficient.

AID FOR OPERATIONS.

To-day the aid for operations gives his entire attention and study to the operations of the fleet. He works in conjunction with the War College and the General Board on war plans and strategic matters. Plans are being formulated and brought up to date. In any emergency the aid for operations is prepared to advise promptly as to the movements of ships and to submit such orders as are necessary to carry into effect campaign plans recommended by the General Board and approved by the Secretary. In other words, we are on a war basis, the council of aids serving as a strategy board. It is bringing about efficiency and preparedness which would be impossible under the former system, because the Chief of the Bureau of Navigation, with the various duties of his bureau, could not give his entire time and thought to questions of strategy and operations of the fleet.

AID FOR PERSONNEL.

The aid for personnel is instrumental in coordinating the work of the Bureau of Navigation, the Bureau of Medicine and Surgery, the Marine Corps, the Offices of Naval Militia, Naval Reserve, Aviation, Radio Telegraphy, and of the Judge Advocate General, and he, together with the other aids, advises the Secretary as to the assignments of the higher ranking officers.

AID FOR MATERIAL.

The aid for material occupies one of the important positions. Grouped in what is now designated as the Division of Material are the important technical and material bureaus of the department; bureaus charged with the design, construction, repair, provisioning, and upkeep of both the sea and shore establishment of the Navy. These several bureaus, having clearly defined duties, experience no difficulty in the execution of the various details wholly under their cognizance, but numerous problems arise which require the coordinated efforts of two or more bureaus, reconciling different recommendations and ideas, and it is the duty of the aid for material to study such cases from the broad viewpoint of the requirements of the Navy as a whole and to advise the Secretary accordingly. He acts, as it were, as a referee, the final decision resting with the Secretary.

In matters pertaining to one bureau alone the Secretary naturally looks to the chief of that bureau as his legal and responsible adviser.

Informal conferences between the aid for material and the chiefs of the material bureaus have greatly expedited the transaction of business and have resulted in less paper work and fewer delays.

In addition, the aid for material, being a member of the General Board, has labored to coordinate the work of that board and the work of the technical bureaus of the material division. His efforts are often directed toward presenting the views of the bureaus to the board on subjects of importance in order to make practicable conditions conform to theoretical requirements.

AID FOR INSPECTIONS.

The aid for inspections is specially charged with the supervision of the work of the two permanent departmental inspection boards, the one for ships and the other for shore stations. It is his duty to bring to the attention of the Secretary defective conditions from a military point of view believed to obtain in the Navy as to personnel and material, afloat and ashore, and to make such recommendations in the premises as conditions appear to justify.

The determination of the necessity for repairs to ships, and the advisability of making alterations at great expense to modernize ships, which by reason of age have lost much of their military value, or of retaining on the Navy list at considerable cost for maintenance vessels which have become obsolete or worthless for naval purposes, form part of the duties of this office, all of which make for efficiency and economy of administration.

AIDS RECOMMEND ASSIGNMENTS OF FLAG OFFICERS AND CAPTAINS.

The duty of recommending to the Secretary the assignments to important duty of the higher ranking officers of the Navy, the rear admirals and captains, has also been turned over to the full Council of Aids. They review the records of officers, and from their combined personal knowledge the Secretary is enabled to make appointments that will insure general service efficiency.

The subject of the assignment to duty of these two grades of officers is one of the most important in the Navy, and such assignments should be made only after taking into consideration the professional recommendations made by a number of experienced officers of mature judgment.

REGULAR MEETINGS OF COUNCIL OF AIDS.

In order that the Secretary may have subjects of importance thoroughly considered before the final recommendation comes to him, the aids meet in full council daily and take up questions of departmental policy, general orders and changes in regulations, and submit recommendations on those that require action by the department.

Further, the Secretary and his Council of Aids meet at least once a week, at which times he presents to them such subjects as he wishes them to consider.

BUREAU CHIEFS AND AIDS MEET WITH SECRETARY MONTHLY.

The bureau chiefs confer freely with the Secretary whenever any matter arises that affects their particular bureaus. In order that they may have opportunity to present any subject for general discussion, a regular meeting of all the bureau chiefs and aids is held on the first Monday of each month in the Secretary's office.

The chiefs of bureaus have consistently endeavored to carry out the various details of the organization and have been actuated by the spirit of efficiency and economy that has pervaded the present administration. I desire to accord to them and to the aids full measure of praise for all that has been accomplished through their efficient cooperation.

RECOMMENDATION.

Last year I recommended that the four aids be legalized, and now renew this recommendation. The usefulness of the aids in securing economical results and good administration in the Navy Department is beyond question.

MEETINGS OF COMMANDANTS.

In order to standardize the work of the navy yards, quarterly meetings of the commandants on each coast have been inaugurated, and for a similar purpose annual meetings of all commandants, the aid for material and the director of navy yards are held at Washington. These meetings are of immense importance, and are producing like procedure in standard operations in all the yards and a resultant increase in efficiency with a reduction of cost of work due to general adoption of the best details of each yard.

RESULTS.

The present organization of the Navy Department can be best judged by the satisfactory conditions existing to-day, for the business of the Navy is now being conducted with a minimum expenditure while maintaining the highest efficiency of the fleet.

An increase in tonnage, personnel, and activities can be maintained only by a proportionate increase in available funds, and from now on the Congress should be prepared to grant such reasonable increases in appropriations as the demands for a growing Navy may require.

COUNCIL OF NATIONAL DEFENSE.

What the Navy is striving for is to get the highest possible efficiency and preparedness for war. It is felt that a council of national defense will be an additional benefit to the Navy and to the Nation. It will in a way be a vehicle between the department and Congress.

In order to have success, there must be efficiency. To have efficiency, there must be a definite policy; to bring about a definite policy, there must be cooperation and coordination of Congress, the Army, and the Navy. To obtain this cooperation, there must be an intelligent understanding between the legislative and the executive authorities.

The proposed council of national defense should be made up of two Cabinet officers, four Senators, four Congressmen, two Army officers, and two Navy officers. It would seem that this council would tend toward and result in a better understanding and in a definite policy.

The passage of a bill creating the council of national defense is strongly urged, as the establishment of this council will have far-reaching and beneficial effects.

BUREAU OF EQUIPMENT.

The present method of handling the appropriations formerly under the cognizance of the Bureau of Equipment is both illogical and unbusinesslike.

The books of the Bureau of Supplies and Accounts are kept open for two prior fiscal years, and under the present distribution of the duties of the Bureau of Equipment among the various bureaus it is necessary to maintain accounts under each bureau, a total of 40 accounts. This number can be reduced over half if the bureau is abolished and a clean appropriation made.

The necessity for keeping all these different accounts has resulted in confusion and misunderstanding as to the cognizance of various items of expenditure, and has caused a large amount of additional correspondence. This confusion is reflected in requisitions prepared on board ship and elsewhere in that articles chargeable to two or more separate "allotments" are frequently placed upon a single requisition.

COMMERCIAL PRACTICE FOLLOWED IN ASSIGNING EQUIPMENT ELECTRICAL DUTIES.

Electricity is becoming a great motive power. The General Electric Co. is working out new designs for the use of electricity in connection with turbines, and it is important that in the machinery departments, both ashore and afloat, our officers should be experts in this line of work.

The Vickers Co., England's largest shipbuilding concern, successful not only in the ships it builds, but in its returns to stockholders, indicating great efficiency and economy, has found it advantageous to group electricity and steam engineering together.

The practice coincides with what the department adopted here. Everything points to the increased use of electricity as a motive power for the engine room of the future; therefore it would be illogical to place the design, installation, care, and maintenance of electrical machinery elsewhere than in the hands of officers who are charged with its operation and upkeep under actual service conditions at sea. This is particularly evident after three years' successful experience since the transfer of electrical work from Equipment to Steam Engineering.

RECOMMENDATION.

To effect the principal changes found necessary it is recommended that the Bureau of Equipment be abolished, and that the Secretary be authorized to distribute its duties among other bureaus.

The department wishes to distribute the duties of the Bureau of Equipment as follows: Coal and its transportation, to Supplies and Accounts, with certain other minor matters; electric generators and accessories, electrical signal apparatus, and wireless-telegraph outfits, to the Bureau of Steam Engineering; chain and anchor manufacture, rope making and rigging of wire or rope, canvas work, galleys and fittings, and flags and bunting, to Bureau of Construction and Repair; and the Naval Observatory, Hydrographic Office, and Compass Office, to the Bureau of Navigation. It has been recommended by preceding Secretaries, the only question at issue being the assignment of *equipment* electricity.

There is no evidence that another bureau for electrical work will be required, as the electrical duties of the old Bureau of Equipment have been satisfactorily handled for three years by the Bureau of Steam Engineering. Further, the tendency is to consolidate wherever possible so as to increase economy and efficiency.

OFFICE SPACE REQUIRED BY THE NAVY DEPARTMENT.

The Navy Department and Marine Corps now occupy 68,860 square feet of floor space in the State, War, and Navy Department Building and 49,504 square feet of floor space in the Mills Building and annex, which results in a division of the bureaus on different floors and in different buildings in such a manner as to cause unavoidable delay in the transaction of business. No thorough economy of time and expense can be expected until the Navy Department has additional office space, so that the different bureaus and offices can be properly grouped for the economical transaction of business. Should the State Department move into new quarters, the whole south side of this building should be turned over to the Navy Department.

THE FLEET.

ATLANTIC FLEET.

Throughout the fiscal year the Atlantic Fleet has been under the command of Rear Admiral Hugo Osterhaus, and exercises, maneuvers, and fleet training have been carried forward in a very satisfactory manner. In the summer of 1911 the fleet based at Cape Cod Bay for several months, and the following winter made the usual visit to Guantanamo Bay. Target practice, docking periods, divisional cruising, and opportunities for granting liberty and leave to officers and men were scheduled so as to occupy the intervals between these two periods, and it is felt that the year has resulted in decided added efficiency of the fleet. Advantage has been taken of opportunities on long passages to exercise the fleet, with all auxiliaries, in strategical exercises and war games on a larger scale than ever before.

No foreign cruises were made by the fleet during the year. One squadron had the pleasure of welcoming the German vessels that called at Hampton Roads and New York in June, in return for the visit of the second division of our fleet to Kiel one year before.

In the latter part of May it became necessary to employ one squadron of the fleet in the waters of Cuba and vicinity because of the disturbed conditions existing in that Republic, but fortunately by the end of June conditions had so improved as to permit their release and return to their usual exercises.

PACIFIC FLEET.

The Pacific Fleet, consisting of two divisions of armored cruisers, three in the first division and two in the second, was under the command of Rear Admiral Chauncey Thomas until March 7, 1912. On that date, Rear Admiral W. H. H. Southerland assumed command, the *West Virginia* being detached and placed in reserve, due to shortage of personnel, and the remaining four vessels united in one division.

The early part of the fiscal year was spent by the Pacific Fleet in overhauling, docking, target practice, and the usual cruising and exercises on our own coast, but in November conditions made it appear desirable for it to base at Honolulu, and the fleet sailed from San Francisco for that place on November 21. Some three and one-half months were spent in that vicinity, visits being made to the surrounding islands, and drills and exercises carried out at sea, with Honolulu as a base.

On March 18 these vessels sailed for the naval station, Olongapo, P. I., and operated in that vicinity until the latter part of June, when a cruise to China and Japan en route home was started.

SPECIAL OPERATIONS IN CENTRAL AMERICAN WATERS.

The Navy and Marine Corps have taken a conspicuous part in Nicaragua during the revolution that started in that country on July 29, 1912, and have performed most valuable services in protecting the lives and property of American citizens and other foreigners in that country.

When the revolution broke out under Gen. Mena the *Annapolis* was performing the usual routine duties on the west coast of Central America, and proceeded promptly to Corinto. A few days later, upon the recommendation of the President of Nicaragua, conveyed through the American legation, a force of about 100 bluejackets was sent on August 4 from the *Annapolis* to Managua, the capital, which force protected American citizens and acted as a legation guard during the ensuing bombardment of Managua by the revolutionists.

Meanwhile, it became advisable to send the *Tacoma* to Bluefields, on the east coast of Nicaragua, and this vessel remained there from August 6 to October 19, a landing force of about 50 men being ashore most of this time to insure protection of American life and property in case of disorder.

Also a force of 350 marines from the Canal Zone was brought north in the collier *Justin* and at once proceeded to Managua, arriving there on August 15 and reenforcing the legation guard. Their arrival produced an excellent effect and was much appreciated by the Nicaraguan Government and all foreigners.

On August 10 the *Denver* was diverted from a projected cruise to the Mexican coast and ordered to Nicaragua, and affairs continued to grow so serious, with increasing menace to the railroad and other American properties, that on August 21 it was decided to send an additional regiment of marines and the armored cruiser *California* to the scene. The *Glacier*, with provisions, and the *Prometheus* and *Saturn*, with coal, were also dispatched there, followed finally by the *Colorado* and *Cleveland*, thus bringing the force to a satisfactory strength for keeping open communication with Managua and Granada, for protecting the lives and property of Americans and other foreigners, and for maintaining an adequate legation guard.

The commander in chief of the Pacific Fleet arrived at Corinto on August 28 and took complete charge of military affairs in the western part of Nicaragua, controlling the land operations of the bluejackets and marines as well as the duties performed by the ships in patrolling the coast and preventing filibustering. The *Cleveland* reached Corinto September 14, being the last ship to arrive there, and her landing force was at once sent ashore, bringing the number of bluejackets and marines ashore in Nicaragua to a total of about 2,350.

These combined forces were diligently and expeditiously employed in opening the railroad from Corinto to Managua, and later to Granada, and it is certain that their effective services assisted immeasurably in restoring tranquillity in Nicaragua and in relieving the deplorable conditions of privation and hunger that resulted in several localities from the operations of the rebel forces.

Unfortunately it became necessary to use armed force in order to dislodge a band of revolutionists from the Barranca, a fortified position consisting of two hills near Masaya, between which the railroad passes, and from which the revolutionists controlled and threatened the railroad and held Masaya in a state of pitiable destitution. A short but gallant assault succeeded in overcoming the resistance; in the assault four of our men were killed and five wounded. This occurred on October 4, and on the same day five marines were slightly wounded in a skirmish at Chichigalpa. On October 6, while an American detachment was entering Leon to occupy the town, some resistance was encountered, and our loss amounted to three killed and three wounded.

The loss of seven killed is most deplorable, but the operations in which these lives were sacrified were necessary in fulfilling the very evident obligations of this Government, and it is doubtful if the results in the interest of humanity could otherwise have been obtained. With the surrender of Gen. Mena to Admiral Southerland and his deportation from the country, followed by the death of Gen. Zeledon, the revolutionary movement quickly subsided, and by the latter part of October practically normal conditions obtained throughout the country, although it was deemed prudent by our Government to keep a considerable force ashore at various important centers until after the presidential elections in Nicaragua in November.

The department feels gratified over the success attending this carefully planned campaign, and has noted with pleasure that the forces of the Navy and Marine Corps engaged in these operations ashore, under frequently very trying conditions, have by their conduct lived up to the best traditions of the Naval Service.

These operations again demonstrated the necessity for properly designed and equipped transports for the use of the Navy.

ASIATIC FLEET.

The Asiatic Fleet, under the command of Rear Admiral Joseph B. Murdock, throughout the fiscal year, continued the usual operations on that station in safeguarding American interests. Particularly during the revolution in China in the winter of 1911 and 1912 very valuable services were rendered, and all available vessels, including the destroyers, were concentrated in Chinese waters at this critical period. Rear Admiral Reginald F. Nicholson succeeded Rear Admiral Murdock in July of this year. In accordance with the policy of the department that extensive repairs be made at the home yards, the *New Orleans* returned to the navy yard, Puget Sound, being relieved by the *Cincinnati* on the Asiatic station. The submarines of the Asiatic Fleet made a very successful cruise to the Southern Philippine Islands in April, 1912.

ATLANTIC TORPEDO FLEET.

The Atlantic Torpedo Fleet of destroyers and submarines continued their most valuable and instructive exercises in developing the offensive and defensive tactics of these useful craft, working in conjunction with the Atlantic Fleet whenever opportunity offered. This fleet ceased to exist as a separate organization in March, 1912, when the destroyers, with their tender, were attached to the Atlantic Fleet as the Torpedo Flotilla thereof, and nine submarines and their three tenders were constituted as the Atlantic Submarine Flotilla, a separate organization, which, however, will be attached to the fleet whenever joint exercises are possible.

It is intended to place the combined torpedo and submarine flotillas in the fleet under the immediate command of a rear admiral.

PACIFIC TORPEDO FLEET.

The Pacific Torpedo Fleet, consisting of 12 destroyers and torpedo boats and 2 submarines, with tenders, also carried out tactical and strategical exercises of an advanced nature, and valuable information was obtained from their operations. Unfortunately shortage of personnel rendered it necessary to place the majority of these vessels in reserve, so that at the end of the fiscal year only one group of five destroyers remained in active service, together with two new submarines that took the place of the two older ones placed in reserve.

UNATTACHED VESSELS IN ACTIVE SERVICE.

Vessels of the Navy in active service, but not attached to fleets, have continued varied operations in protecting American interests in disturbed districts of South America, Central America, and the West Indies, in surveying work, and in other forms of service not consistent with the character of vessels comprising the organized fleets. The Naval Academy practice squadron visited Kiel, Bergen, and Gibraltar, after calling at Queenstown, at the end of the preceding fiscal year.

MOVEMENTS OF INDIVIDUAL VESSELS.

The movements of all vessels of the Navy during the fiscal year are published in a separate pamphlet.

THE MOBILIZATION.

The fleets are in a more efficient condition than ever before. Last year the custom of mobilizing the fleet annually was inaugurated to furnish an ocular demonstration of the preparedness and efficiency of the organizations both in the fleet and in the navy yards. The second mobilization of the Atlantic Fleet was held this year in North River, N. Y., and simultaneously there was a mobilization of the Asiatic Fleet in Manila Bay. Complete arrangements were made to have the Pacific Fleet mobilized at San Francisco, but owing to the absence of many of the vessels on special service it was necessary to cancel the arrangements.

On October 14 the ships assembled at New York were inspected in the forenoon by the Secretary of the Navy. In the afternoon of the same day the President inspected the fleet, and on the following day reviewed it as the ships passed out of the harbor in fleet formation.

Mobilization of Atlantic Fleet at New York.

Battleships:	Displacement (tons).
Connecticut (flag)	16,000
Arkansas	26,000
Wyoming	26,000
Florida	21,825
Utah	21,825
Delaware	20,000
North Dakota	20,000
Michigan	16,000
South Carolina	16,000
Louisiana	16,000
Vermont	16,000
New Hampshire	16,000
Kansas	16,000
Minnesota	16,000
Idaho	13,000
Georgia	14,948
Virginia	14,948
Nebraska	14,948
New Jersey	14,948
Rhode Island	14,948
Missouri	12,500
Ohio	12,500
Maine	12,500
Illinois	11,552
Wisconsin	11,552
Alabama	11,552
Kearsarge	11,520
Kentucky	11,520
Iowa	11,346
Indiana	10,288
Massachusetts	10,288
Total (31)	478,508
Armored cruisers:	
Tennessee	14,500
Montana	14,500
Washington	14,500
North Carolina	14,500
Total (4)	58,000
Cruisers:	
Salem	3,750
Birmingham	3,750
Chester	3,750
Baltimore	4,413
Total (4)	15,663
Destroyers:	
Smith	700
Lamson	700
Flusser	700
Preston	700
Reid	700
Paulding	742
Drayton	742
Roe	742

Destroyers:	Displacement (tons).
Terry	742
McCall	742
Perkins	742
Sterett	742
Walke	742
Ammen	742
Burrows	742
Monaghan	742
Patterson	742
Trippe	742
Fanning	742
Jouett	742
Beale	742
Jenkins	742
Worden	433
Macdonough	400
Total (24)	16, 947

Gunboats:	
Nashville	1, 371
Petrel	890
Dolphin	1, 486
Total (3)	3, 747

Torpedo boats:	
Tingey	165
Craven	146
Shubrick	200
Thornton	200
De Long	196
Stockton	200
Dahlgren	146
Bailey	280
Bagley	175
Barney	175
Biddle	175
Stringham	340
Porter	165
Blakely	196
Dupont	165
Morris	105
Total (16)	3, 029

Submarines:	Displacement (tons).
C 1	
C 2	
C 3	
C 4	
C 5	
D 1	
D 2	
D 3	
E 1	
E 2	
Total (10)	

Naval Militia vessels:	
Machias	1, 177
Marietta	990
Vixen	806
Gloucester	786
Wasp	630
Aileen	192
Total (6)	4, 581

Special type:	
Dixie (tender)	6, 114
Castine (tender)	1, 177
Severn (tender)	1, 175
Tonopah (tender)	3, 225
Mayflower (converted yacht)	2, 600
Yankton (converted yacht)	975
Celtic (supply ship)	8, 000
Culgoa (supply ship)	6, 000
San Francisco (mine layer)	4, 083
Lebanon (ammunition ship)	3, 285
Panther (repair ship)	3, 380
Solace (hospital ship)	5, 700
Montgomery (torpedo practice ship)	2, 072
Sonoma (tug)	1, 120
Ontario (tug)	1, 120
Patapsco (tug)	755
Patuxent (tug)	755
Total (17)	51, 626

Fuel ships:	
Orion	19, 132
Cyclops	19, 360
Sterling	5, 663
Vulcan	11, 230
Hector	11, 230
Cæsar	5, 920
Brutus	6, 600
Ajax	9, 250
Total (8)	88, 385

SUMMARY.

Battleships (31)	478, 508
Armored cruisers (4)	58, 000
Cruisers (4)	15, 663
Special type (17)	51, 626
Gunboats (3)	3, 747
Naval Militia vessels (6)	4, 581
Destroyers (24)	16, 947
Torpedo boats (16)	3, 029
Submarines (10)	-------
Fuel ships (8)	88, 385
Ships of all classes (123)	720, 486

COMPARISON OF FORCES MOBILIZED, 1911 AND 1912.

At the mobilization of the United States Atlantic Fleet at New York, in 1911, there were 24 battleships, 2 armored cruisers, and 72 smaller vessels, representing a total displacement of 576,634 tons.

There were 1,124 officers and 25,378 enlisted men of the Navy and Marine Corps attached to these vessels.

During the review held at New York from the 12th to the 15th of October, 1912, there were 31 battleships, 4 armored cruisers, and 88 smaller vessels, representing a total displacement of 720,486 tons. There were attached to these vessels 1,300 officers and 27,464 enlisted men of the Navy and Marine Corps.

Recapitulation.

	1911	1912	Increase.
The fleet:			
Battleships	24	31	7
Armored cruisers	2	4	2
Smaller vessels	72	88	16
Displacement (tons)	576,634	720,486	143,852
Personnel:			
Officers	1,124	1,300	176
Enlisted men	25,378	27,464	2,086

MOBILIZATION OF ASIATIC FLEET.

Simultaneously with the mobilization of all available vessels in the Atlantic at New York there was held a similar mobilization at Manila of all vessels that could be assembled there.

After reviewing the fleet the President made the following comment:

THE PRESIDENT'S COMMENT.

"My inspection of the mobilized fleet and a comparison with the force assembled last year assure me that the Navy is now in a decidedly stronger and more efficient condition than a year ago. There are assembled to-day 123 vessels, in place of 98 in 1911, an increase in the gross tonnage of 150,000 tons, showing a far greater percentage of vessels actually ready for immediate service. This is a direct result of the reorganization which has increased the efficiency of the Navy by cooperation of all the departments and officers of the fleet.

"It has been very gratifying to me to see the interest shown by the Naval Militia, and I am delighted with their military and naval aspect. The reserve fleet also shows a quick asset to the Navy in time of need.

"The presence in New York to-day of the vast concourse of citizens from all over the United States is further evidence that the country at large is enthusiastically in favor of our Navy.

"The widespread interest throughout the United States in this mobilization will undoubtedly have a beneficial effect in leading young men to consider more carefully the many advantages to be derived from enlisting in the Navy, while those of the Navy present on this occasion will be stimulated in their work and rendered still more zealous by the visible display of the potential strength of the military arm in which they are serving.

FLEET PREPARED FOR BATTLE.

"I can not forbear to congratulate the Secretary of the Navy and the officers and men of the fleet on the magnificent appearance which in this grand review of these two days the fleet presents. I am sufficiently advised of the preparedness of the vessels to know that when they pass me to-morrow in front of the Statue of Liberty, they would be ready to meet an enemy outside of Sandy Hook, both those vessels on the active list and those on the reserve, with their guns shotted and ammunition enough in store to do effective battle for their country.

"The Secretary of the Navy has consistently labored to bring about a system of control in the Navy Department which shall be military rather than civil, and directed to fighting rather than merely to manufacture and industrial work. A navy is for fighting, and if its management is not efficiently directed to that end the people of this country have a right to complain. The institution of naval aids to the Secretary, resembling in some respects the General Staff of the Army, has brought about a condition adapted to a quick preparation of fighting units and a quick mobilization of squadrons and fleets that never has been posssible before in the history of that department.

"It is true that there are needed more auxiliary vessels than we now have were we to enter upon a war of large proportions, but it is satisfactory to know that the time in which such auxiliary vessels could be prepared is not prohibitive, and is much less than would be needed to add battleships. I sincerely hope that whatever party comes into power the policy of two battleships a year will be continued until, through the Panama Canal and otherwise, the needs of the Pacific coast for its defense shall be satisfied and our people whose States abut on that great ocean may feel that they, too, are receiving the benefit of the sums expended from the National Treasury for adequate naval defense.

THE NAVY AN INSURANCE.

"Of course no one of us desires to have battleships merely for the pleasure of feeling a power to control other nations. No one wishes battleships for the purpose of promoting war or leading to international controversy. We provide a navy as we provide insurance, against a possible loss or a danger which we hate to anticipate, but which under present conditions we should be foolish not to treat as possible. I know there are a great many conscientious peace lovers who resent the expenditure of a dollar for a battleship. Their theory is that we can reach a peaceful solution of international contests earlier if we begin the disarmament and make ourselves physically helpless before the nations of the world. They believe that this by way of example will lead other nations to the same course and so ultimately accomplish the purpose of all of us, which is the settlement of all international controversies by peaceful means.

"I differ from these earnest and thoughtful people with great respect for their opinion, but I differ from them none the less. I do not think the world has yet reached a point where advantage would not be taken of our inability to resist attack, or to meet other nations on an equality in war; and I believe that it is essential, in order that we should preserve our prestige, by the exhibition of actual power of resistance and of attack, until through our influence, and with all other nations equally anxious to bring about peace, there shall be substituted some sort of tribunal or court or board of arbitration before which any nation shall be enabled to call in any other nation to answer, and to execute any judgment delivered against it after a hearing."

CHARACTER OF NEW VESSELS AT THE REVIEW.

There were 25 additional vessels at the review this year. Of these, 11 have been completed, commissioned, and added to the active fleet since the date of the last review. Two of these are battleships of 26,000 tons each, four are destroyers, two are submarines, two seagoing tugs, and one fuel ship. All of the above vessels except the submarines were designed in detail by the technical bureaus of the Navy Department, and were built in American shipyards, of American material in all respects.

The two battleships, the *Wyoming* and *Arkansas*, are vessels of 26,000 tons displacement and 21 knots designed speed. Each of them on trial much exceeded the designed speed, and they have been characterized as the fastest battleships in the world. They each carry twelve 12-inch 50-caliber guns in six turrets on the center line, permitting all guns to be fired on a broadside. They are protected by 11 inches of the most efficient armor. These vessels are driven by Parsons turbines with four shafts, and the boilers are fitted to burn both coal and oil. They are to-day the largest battleships in service in any navy, in addition to being the fastest, although larger vessels of this class are building for the United States and also for other navies.

Both the *Wyoming* and *Arkansas* were constructed in less than three years from the date of contract to date of actual commissioning ready for mobilization, and but two years and eight months elapsed between the laying of their keels and their final completion.

The new torpedo-boat destroyers are oil burning, of the type which has been developed so successfully for the United States Navy, and are armed like the class immediately previous to them, represented by the *McCall*, *Burrows*, and *Mayrant*. This type of destroyers has shown itself particularly well suited to service conditions, and their seaworthiness and stanchness were more than amply demonstrated since the last review in the severe January hurricane. In the case of the *Warrington*, due to collision with a schooner, some 40 feet of the stern was cut off, including rudder and propellers, and yet the boat was safely brought to port and all on board saved.

The submarines are a development of the submarines previously in use in the United States Navy, with increased displacement, speed, and radius.

The seagoing tugs are specially designed for use at target practice and for tenders to the fleet, requiring unusually rugged and seaworthy craft.

The new collier is of the general type of the *Cyclops*, specially designed for fleet work in peace and war, and for handling at maximum rates large volumes of coal for the ships of the battle fleet. This type of vessel, of which there are now seven built or building, carries 14,000 tons of cargo and bunker fuel. They have proven eminently successful, and in the recent visits of United States squadrons to foreign waters attracted much attention and favorable comment.

SUCCESS OF THE MOBILIZATION DUE TO PRACTICAL BUSINESS METHODS IN THE NAVY.

Of the 14 older vessels presented at this review and not present at the review of 1911 all were then overhauling. They are now completed and ready for service.

Four of the vessels present had only recently received serious damages—*New Hampshire*, *Beale*, *Walke*, and *Porter;* but the repairs were taken in hand immediately and pushed to completion, so that all were present. The ships in the reserve fleets, ranging from battleships and cruisers at Portsmouth and Philadelphia down to torpedo boats and submarines at Charleston, were shown to be in readiness, as is evidenced by the fact that they sailed for the mobilization at the appointed time, fit for any duty. The large amount of work undertaken at such times, and the variety of the same, has to be fully understood to appreciate what was accomplished in the planning, laying out, and carrying this work to completion.

To secure the presence of this vast fleet an immense amount of work on the part of the administrative and the material branches of the service was required.

To the coordinated efforts of the technical bureaus of the Navy Department and the hearty and successful response of our navy-yard organizations to the demands made upon them is due to a very great degree the credit for the consummation of this mobilization.

Ships out of service through various causes have been thoroughly overhauled and modernized and are now present either in the active fleet or attached to the mobile reserve.

Conscious ever of the fact that navy yards are for the purpose of serving the fleet, no better example of their worth can be given than the work that they have so successfully accomplished in recent years.

RESERVE FLEETS.

As the result of consistent effort and in accordance with the plans outlined in my last annual report, it has been possible to create and actually organize reserve fleets on the Atlantic and Pacific coasts.

These two fleets, possessing an important military value, are maintained in a state of material readiness, and would in time of war or emergency constitute our second line of defense.

The Atlantic Reserve Fleet was established at the navy yard, Philadelphia, Pa., on May 1, 1912, under Rear Admiral Austin M. Knight as commander in chief. The Pacific Reserve Fleet was established at the navy yard, Puget Sound, Wash., on March 25, 1912, under Rear Admiral Alfred Reynolds as commander in chief. The composition of these fleets on July 1 was as follows:

1. The Atlantic Reserve Fleet and other vessels available for assignment thereto:

- Battleships:
  - Indiana.
  - Massachusetts.
  - Iowa.
  - Kearsarge.
  - Kentucky.
  - Wisconsin.
  - Illinois.
  - Alabama.
  - Maine.
- Armored cruisers:
  - Tennessee.
  - Montana.
  - North Carolina.
  - Washington.
- Scouts:
  - Birmingham.
  - Chester.
  - Salem.
- Cruisers:
  - Baltimore.
  - Olympia.
  - Tacoma.
  - Des Moines.
  - Chicago.
  - Machias.
- Colliers:
  - Vestal.
  - Neptune.
  - Leonidas.
- Destroyers:
  - Macdonough.
  - Worden.
- Torpedo boats:
  - Craven.
  - Dahlgren.
  - De Long.
  - Shubrick.
- Torpedo boats—Contd.
  - Stockton.
  - Thornton.
  - Tingey.
  - Wilkes.
  - Stringham.
  - Bailey.
  - Biddle.
  - Bagley.
  - Barney.
  - Blakely.
  - Du Pont.
  - Morris.
  - Porter.
- Submarines:
  - A-1.
  - B-1.
  - B-2.
  - B-3.

On July 1 these vessels were assembled at the following yards:

(*a*) At Philadelphia "the Atlantic Reserve Fleet" proper, under the command of Rear Admiral Knight as commander in chief, and consisting of the battleships *Indiana*, *Massachusetts*, *Iowa*, *Kearsarge*, *Wisconsin*, and *Maine*, the armored cruisers *Tennessee* and *Montana*, the scouts *Birmingham* and *Chester*, and the collier *Vestal*.

(*b*) At Charleston, S. C., the Reserve Torpedo Flotilla, consisting of the cruisers *Baltimore* and *Olympia*, and the torpedo boats, destroyers, and submarines *Macdonough*, *Worden*, *Craven*, *Dahlgren*, *De Long*, *Shubrick*, *Stockton*, *Thornton*, *Tingey*, *Wilkes*, *A-1*, *B-1*, *B-2*, and *B-3*.

(*c*) At Annapolis, a Reserve Torpedo Flotilla, consisting of the *Stringham*, *Bailey*, *Biddle*, *Bagley*, and *Barney*.

(*d*) All remaining vessels were at navy yards awaiting their transfer to Philadelphia or were engaged on special duty.

The Pacific Reserve Fleet and other vessels available for assignment thereto.

- Battleship, Oregon.
- Armored cruisers:
  - Pennsylvania.
  - West Virginia.
- Cruisers:
  - St. Louis.
  - Milwaukee.
  - Charleston.
  - Chattanooga.
  - Galveston.
- Cruisers—Continued.
  - Denver.
  - Cleveland.
  - Raleigh.
  - Marblehead.
- Destroyers:
  - Paul Jones.
  - Hopkins.
  - Truxtun.
  - Lawrence.
- Torpedo boats:
  - Fox.
  - Davis.
  - Farragut.
  - Rowan.
- Submarines:
  - A-3.
  - A-5.
  - Fortune (tender).
- Monitor, Cheyenne.

On July 1 these vessels were assembled at the following yards:

(*a*) At Puget Sound, Wash., the "Pacific Reserve Fleet" proper, under the command of Rear Admiral Reynolds as commander in chief, and consisting of the following vessels: The battleship *Oregon*, armored cruisers *Pennsylvania* and *West Virginia*, cruisers *St. Louis*, *Milwaukee*, *Charleston*, *Raleigh*, *Chattanooga*, and *Galveston*, monitor *Cheyenne*, torpedo boats *Fox* and *Davis*, and submarines *A-3* and *A-5*.

(*b*) At Mare Island, cruisers *Denver*, *Cleveland*, destroyers and torpedo boats *Paul Jones*, *Truxtun*, *Hopkins*, *Lawrence*, *Farragut*, and *Rowan*, and the *Marblehead*, now on special detail.

The ships of these fleets are in commission with reduced personnel, but are ready for sea as regards material, and they are governed by regulations and routine carefully drawn to keep them in constant readiness for sea. These ships will make a short cruise each year during which full-power trials and target practice will be held and will be prepared either to replace ships in the first line or to form a powerful and efficient coast defense.

The ships of these two reserve fleets have been created from what was two years ago a scattered lot of unserviceable and uncommissioned vessels. Without in any way neglecting the active fleet, we have been able to complete the work on practically every vessel heretofore "in ordinary."

As an example of the preparedness of the Reserve Fleets the *Tennessee* and *Montana* were ready to sail on November 11, 1912, on the voyage from Philadelphia to the Mediterranean about 72 hours after receiving orders.

PREPAREDNESS OF THE FLEET AS REGARDS REPAIRS.

The preparedness of the fleet as regards repairs and upkeep has been maintained at a most satisfactory standard, and the ships of the Navy, irrespective of their classes, have been generally in a condition to respond to the many calls that have been made upon them.

This gratifying condition has been brought about through several coordinated methods:

(*a*) The development of a spirit of self-dependence, and the ability on board every ship to be self-sustaining to the maximum possible degree.

(*b*) The establishment of and adherence to routine docking and repair periods.

(*c*) The standardizing of major changes and alterations; approvals and authorizations being made equally applicable to all vessels of a class.

(*d*) The use of fleet auxiliaries.

(*e*) Improvement in yard methods; the employment of a steady force of highly trained and efficient mechanics and workmen.

Vessels of the Navy ready for service and those undergoing extensive repairs at the end of certain calendar years.

Class of vessel.	1909		1910		1911		1912	
	In active service or ready.	Repairing.	In active service or ready.	Repairing.	In active service or ready.	Repairing.	In active service or ready.	Repairing.
Battleships	17	10	18	11	26	5	33	None.
Armored cruisers	10	....	10	....	8	2	9	1
Cruisers	13	14	13	14	20	7	22	5
Gunboats	33	5	34	2	33	1	31	2
Colliers	19	4	17	2	21	1	20	None.
Destroyers	9	11	18	9	35	....	32	8
Submarines	12	6	8	10	17	3	19	4
Total	113	50	118	48	160	19	166	20

NOTE.—Four battleships are scheduled for three months' routine overhaul during the period January 1 to March 31.

The department issued, on April 1, 1912, a schedule of overhaul periods for the battleships, covering a period of one year. This, like the fleet itinerary, is subject to variations due to unforeseen circumstances, but every effort is made to carry out this schedule, as it provides for a uniform flow of work at the yards, keeps 17 battleships in cruising condition, with 4 overhauling at the yards, and adds to the contentment and consequent efficiency of the personnel in having definite plans of employment published in advance.

PROPOSED NEW CONSTRUCTION.

PREVENTION OF WAR.

That international efforts toward peace have accomplished nothing as to the limitation of armaments needs no argument.

If an efficient fleet of adequate size is maintained the country will be safe from attack and free to work out its destiny in peace and without hindrance. The recommendation for a continuing policy which will give the fleet desired is made with due regard for the almost world-wide movement for the settlement of international disputes by arbitration, in which movement this country has taken a foremost part. History of all times, including the present, shows the futility and danger of trusting to the good will and fair dealing, or even to the most solemnly binding treaties, between nations for the protection of a nation's sovereign rights and interests, and, without doubt, the time is remote when a comparatively unarmed and helpless nation may be reasonably safe from attack by ambitious, well-armed powers, especially in a commercial age such as the present. The economical system of a great commercial nation is so delicately balanced that even a threat of war is very disturbing and harmful, while a war with any other great power would cause incalculable damage. To avoid war and insure peace the country must be prepared for war.

No person of intelligence who has studied international policies can be blind to the fact that the possession of great wealth, resources, and population does not carry with it immunity from attack should a nation's interests clash with those of another better prepared.

"*Experience has shown the wisdom of systematic preparation for war. If we wait until a crisis comes, it is then too late to make effective preparations, and the result is confusion, waste, and unnecessary loss of life.*

"*In any war involving the United States the control of the sea will be of the utmost and deciding importance. Such control can be obtained only by an efficient Navy of sufficient strength.*"

WASHINGTON'S WORDS.

"The United States ought not to indulge a persuasion that, contrary to the order of human events, they will forever keep at a distance those painful appeals to arms with which the history of every other nation abounds. *There is a rank due to the United States among nations which will be withheld, if not absolutely lost, by the* *reputation of weakness.* If we desire *to avoid insult, we must be* able to repel it; if we desire to secure peace, one of the most powerful instruments of our rising prosperity, it must be known that we are at all times ready for war."

RELATIVE STANDING OF NAVAL POWERS.

Nowadays only so-called dreadnoughts and battle cruisers are considered in estimating naval strength. These are called capital ships, and in a few years, if the powers do not increase their present programs, and if the Congress authorizes only two capital ships every year, the United States will have dropped from *second to fourth* on the list.

THE CANAL DOES NOT DOUBLE THE FLEET.

It has been erroneously stated that the canal will double the fleet. It will increase the efficiency of the fleet somewhat because if the fleet is on this side it will reduce the time necessary to bring it around to the Pacific coast, but it does not increase the number of ships.

The canal does double the power of the fleet in some respects when it permits of transferring the fleet from one side to the other, but this is a condition that has been fully considered whenever the subject of present and future naval strength has been under discussion by the naval experts.

With an immense coast line, and with the whole of South and Central America to separate the east from the west coasts, this country would otherwise need double the fleet of a country whose coast line is continuous.

In times of peace it is pointed out that there will be no more wars, but history shows that wars come at times with little or no warning. There is no time left to build battleships, and it is impossible to buy them. Congress should provide the auxiliaries, destroyers, etc., that go with the battleship fleet, but when war comes the auxiliaries will not go out and sink the battleship fleets. Only battleships can do this work.

A CONTINUING ANNUAL BUILDING PROGRAM NECESSARY.

A total of 41 battleships, with a proportional number of other fighting and auxiliary vessels is, in the opinion of the Secretary, the least that will place this country on a safe basis in its relations with other world powers. This number should be reached as soon as practicable and then the fleet should be kept up to its standard strength by replacing obsolete vessels with new ones by a uniform yearly replacement program.

The mobilization of the fleet demonstrated the need of battle cruisers and of smaller vessels, such as scouts, destroyers, gunboats, submarines, colliers, and ammunition ships.

The department distinctly recognizes the value of torpedo craft and submarines. It would be glad to have more of them, but it is of the opinion that until more of the old battleships are replaced it is wiser to provide for battleships than to sacrifice battleship strength for vessels of less military value.

While only three battleships are included in the estimates for this year, the department feels that the deficiencies of the fleet in other types of ships should be carried out in accordance with the recommendations of the General Board. This board has furnished annually since 1900 a consistent and continuing program.

RECOMMENDATION OF GENERAL BOARD.

The General Board, in pursuance of consistent recommendations since 1900, recommends that provision be made for an increase of the Navy at the coming session of the Congress by the addition of the following new construction:

(a) 4 battleships.
(b) 2 battle cruisers.
(c) 16 destroyers; 1 destroyer tender.
(d) 2 transports.
(e) 1 ammunition ship.
(f) 6 submarines; 1 submarine tender.
(g) 1 supply ship.
(h) 2 gunboats.
(k) 2 seagoing tugs.
(l) 1 dry dock.
(m) 1 submarine testing dock.

NOTE.—The board recommends the conversion of the *Prometheus* into a repair ship, and if this is approved one fuel ship should be provided for the building program to replace the *Prometheus*. It recommends also the conversion of the cruiser *Baltimore* into a mine transport, the *San Francisco*, a sister vessel, converted to this purpose, having proved sufficiently useful to warrant the expenditure necessary to convert the *Baltimore*.

(*a*) *Battleships.*

These will simply replace four battleships, which will be 20 years old in 1914, and will then have to be withdrawn from the second line. They will not constitute a numerical increase in the present strength of the fleet.

(*b*) *Battle cruisers.*

The United States has no vessels of this type. These vessels have a military value not possible to obtain from other types or combinations of types. To further neglect to provide for them is to deliberately weaken our naval strength.

The paramount need of the Navy is, however, for battleships, and the board does not recommend any modification of the building program by which preference in building is given to battle cruisers or other fleet units, and auxiliaries, which will interfere with the ultimate battleship strength.

(*c*) *Destroyers; destroyer tender.*

Since 1907 the board has consistently advocated the policy of 4 destroyers for each battleship, which is considered essential to a proper balance of the fleet. Tenders in the proportions of 1 to 16 destroyers have become indispensable fleet auxiliaries.

(*d*) *Transports.*

The loss by collision at sea of the steamships *Republic*, *Merida*, *Marcellus*, and *Titanic* has emphasized the urgent necessity for two properly designed and equipped naval transports for use, one on the Atlantic and one on the Pacific coast. The only vessels at present available for such duty are the *Prairie* and the *Buffalo*. The former is now 22 years old and the latter 20. Both are single-bottom ships and entirely lacking in water-tight subdivision, having been originally designed as freighters. They further lack many things absolutely necessary for the health and comfort of officers and men on large expeditions. The embarkation of a force of only 750 men with the necessary impedimenta is attended by the most insanitary crowding. Nevertheless, since the close of the Spanish War these ships have been constantly engaged in transporting men on foreign stations, expeditionary forces of marines, and naval militia. Since 1900 there have been, for instance, no less than 24 expeditionary forces of marines dispatched to various parts of the world. From 1909 to 1911 there were transported in the *Yankee* and *Dixie* a little more than 20,000 men. During 1911 the *Prairie* made seven trips with enlisted men and two with marine regiments. The *Buffalo* made two trips to the Asiatic Station, one trip with a marine regiment and one with naval militia of California.

The need for transports is considered sufficiently urgent to warrant the omission of fuel ships for one year.

(*e*) *Ammunition ship*

The United States has now only one small makeshift vessel for ammunition-carrying purposes. The construction of others can not longer be delayed with safety. The program contemplates such construction in the ratio of 1 to 8 battleships and 4 battle cruisers.

(*f*) *Submarines; submarine tender.*

The submarines contemplated are of what is known as the coast-defense type, whose principal function in war is to insure strategical freedom to the main fleet.

Tenders in the proportions of 1 to about 6 submarines have become indispensable fleet auxiliaries.

(*g*) *Supply ship.*

The 3 supply ships now serving the Atlantic and Pacific fleets are more than 20 years old and can not be expected to give much further service. There should be 1 modern supply ship for each 8 battleships.

(*h*) *Gunboats.*

The Navy possesses an insufficient number of gunboats to perform effectively the service required of it for the protection of American interests in Central American and West Indian waters, and in the Far East. With one exception, no gunboats other than for river service, have been added to the Navy since 1902. The construction of two gunboats yearly is contemplated in the program.

(*k*) *Seagoing tugs.*

There are at present but 4 seagoing tugs available for duty on the Atlantic coast, with 2 under construction. Two are available on the Asiatic Station and 1 on the Pacific. The program contemplates the construction of 4 additional seagoing tugs for service with the fleet on the basis of 1 to 4 battleships.

(*m*) *Submarine testing and wrecking dock.*

In view of the increasing number of submarines, and the age of some of the older vessels, there is urgent need also for testing and wrecking docks that may be used for salving submarines of any size; docking submarines; and testing to determine resistance to external water pressure. Two docks of this description will ultimately be required for the Atlantic, and one each for the Pacific coast, Hawaii, Panama, Guam, and the Philippines. The construction of one each year is contemplated in the program.

GUNNERY.

The fleet has maintained its high standard in all branches of gunnery.

The reorganization which has been effected and the establishment of regular periods throughout the year for the accomplishment of military training, should result in still greater improvement in gunnery and a better condition of preparedness for battle, as well as a greater contentment on the part of the personnel afloat.

The problems given the ships at the times of battle practice are as realistic as possible, having in mind the safety of ships and men, and furnish most valuable experience to all concerned. The competition between ships and divisions is very keen and results in exceedingly high standards, which are continually being improved.

With the improvement in gunnery has also come a marked improvement in preparedness for battle. The rules have been so drawn as to direct thought toward what may be expected in an engagement. Casualties have been simulated and unexpected difficulties have been thrown in the way of the officers controlling the fire, so that they may be prepared for unfavorable happenings.

The methods for making the "approach" when about to engage in battle have been studied and developed as a result of the various battle plans laid down by the department for the actual firing of the guns.

It is demanded that the training should be conducted on the open sea, where the rolling and pitching require the most expert skill on the part of the gun pointers in order to hit the target.

SMALL ARMS.

At the last national rifle match the Navy team won the Thompson trophy cup, the first prize for the United Service match, and the Marine Corps won first place in the national match in competition with 42 other teams.

The Marine Corps was represented on the team from the United States that won the international match recently held at Buenos Aires. The Olympic rifle team, that has just won a notable victory at Stockholm, was commanded by a naval officer and included three representatives from the Navy in its membership.

ENGINEERING COMPETITIONS.

The engineering competitions are now firmly established. During the past year the performance of the vessels has, almost without exception, been highly creditable, both as regards speed and economy. The larger vessels either exceed or fall but slightly below their contract speeds, which, in view of their increasing age, indicates a high state of efficiency and continued attention to details. The new destroyers, without exception, can and do duplicate, and frequently exceed, the speeds made at the time of their delivery to the Government. In the matter of smoke prevention, these oil-burning destroyers have constantly improved, and the entire flotilla can now steam at high speed without any smoke whatever, a fact of the greatest tactical and strategic importance. The submarines, in carrying out the requirements of the competition rules, have shown high surface and submerged speeds and ability to complete without assistance voyages of appreciable length.

The records show that in matters of economy of fuel the vessels are maintaining high standards. While remarkable improvement on the part of the older vessels can not be expected from year to year, because of the fact that most of the improvement has already been effected, it is significant that these ships are showing no decrease in economy.

These results were produced by the most energetic attention to duty, in which losses and wastes were eradicated in boilers, engines, and auxiliaries, as indeed they must be if a ship is to take creditable stand in the engineering competition. A constant stream of detailed information on designs and operation exists between ships and the department and between the department and ships, so that officers may readily benefit by the experience of others; that good organization and sound practices may become standardized, and that methods of doubtful expediency may be brought under widespread discussion.

Repair initiative, resulting in a vessel's self-sustaining qualification, has received great impetus during the last few years. Ships will never be entirely self-sustaining, this being limited both by necessary lack of large repair facilities and by the short periods of time possible to allow for repairs and alterations. Large savings in time and money in repair work are now the order of the day, and ships undertake their own repairs as a matter of pride and as a matter of course. The well-known resourcefulness of the American mechanic is a large element in this.

REVISION OF SHIP-INSPECTION REPORTS.

The form used for the military inspection of ships has been revised. Its length was voluminous, but it has now been condensed materially by the elimination of superfluous items. At the same time its value has been enhanced by requiring that as far as practicable the report on matters of ordinary routine and general maintenance, and on readiness for emergency, be based upon general observation, or *observation during unannounced visits*, so that the ship's normal condition may be determined rather than her condition under special preparation for an awaited inspection.

STANDARD SHIPS ORGANIZATIONS.

The matter is now in progress of establishing standard systems of organizations for ships, so that all of one design will have the same, and all of one type will have the same general features, and these will also have as many minor features alike as differences of design will permit. This will enable an active vessel to be replaced by one in reserve or out of commission, transferring officers and crew in a body with a minimum of change of organization, enabling the newly commissioned vessel to take her place in the fleet without delay.

AVIATION.

Although the aeroplane has not yet arrived at the state of perfection required, it is sufficiently advanced to be of great service in many ways, and its satisfactory development for extensive naval use is expected at an early date.

The most serious phase of aviation is that of adequate instruction. It takes longer to produce a sufficient number of competent aerial navigators than to manufacture a sufficient number of aeroplanes.

The following statement will serve to show the comparative interest that is manifested in aviation to-day by some of the powers:

Government appropriation.

France	$6,000,000
Germany	1,500,000
Russia	5,000,000
Great Britain	2,100,000
Italy	2,000,000
Japan	600,000
United States	140,000

It is particularly unfortunate that the small limit of $20,000 is placed on aeroplane machinery this year, because experience shows that each aeroplane used for instruction requires two motors to carry on the work effectively. This of course will be impossible under the present limit, as the expense of repairs is also comparatively great.

It is requested that Congress remove these limits and thus permit the expenditure of as much as is necessary to continue progressive development and adaptation as rapidly as circumstances permit, with due regard for economy.

The plan is to restrict the shore establishment as far as possible, to place a few machines on shipboard at the earliest practicable date for test, and then to carry on the instruction in the fleet in a systematic way.

Naval aviators have demonstrated that hydro-aeroplanes can be readily flown at altitudes of 3,000 feet or more, where they are practically immune from rifle fire, and that the hydro-aeroplane is suitable for long flights. They have been the first to demonstrate that it is practicable to send aeroplanes in flight from ships, that it is possible to hoist them in and out like a ship's boat, and that it is possible to carry on instruction from a ship, using the water as an aerodrome. The work in progress indicates that they will soon be able to leave the ship in flight without more trouble or preparation than is required to discharge a torpedo from an upper deck and to continue in flight with the machine automatically controlled and comparatively safe.

INSPECTION AND MATERIAL.

The aids for inspections and material have been frequently called upon for opinions upon matters regarding personnel and upkeep of naval vessels appearing in the reports of the various trials in inspections held by the Board of Inspection and Survey for Ships, the commanding officers of the fleet, and certain special inspecting boards, and on matters of policy in connection with the use or disuse of obsolete and obsolescent vessels of the Navy.

The Board of Inspection and Survey for Ships has been steadily occupied during the year, and the results of its work are manifest in its reports of 66 inspections of material held, and of 12 preliminary and 11 final trials of new vessels conducted. The work of this board is increased by the present practice of inspecting vessels of the fleet prior to their overhaul periods by a naturally impartial and highly specialized board of naval officers. These reports of material are comprehensive records of the condition of vessels and form a basis for the preparation of estimates for work incident to their overhaul.

PROGRESS OF WORK ON NEW VESSELS.

SHIPS LAUNCHED PRIOR TO BUT COMPLETED DURING THE PRESENT ADMINISTRATION.

Contract built:
- Michigan.
- South Carolina.
- Delaware.
- North Dakota.

Navy-yard built:
- Patapsco.
- Patuxent.
- Vestal.
- Prometheus.

SHIPS LAUNCHED AND COMPLETED DURING THE PRESENT ADMINISTRATION, INCLUDING THOSE EXPECTED TO BE FINISHED.

Contract built:
- Utah.
- Arkansas.
- Wyoming.
- Flusser.
- Reid.
- Smith.
- Lamson.
- Preston.
- Pauling.
- Roe.
- Drayton.
- Terry.
- Perkins.
- Sterrett.
- McCall.
- Burrows.
- Warrington
- Mayrant.
- Monaghan.

Contract built—Contd.
- Trippe.
- Walke.
- Ammen.
- Patterson.
- Fanning.
- Beale.
- Jouett.
- Jenkins.
- Jarvis.
- Henley.
- Neptune.
- Orion.
- Mars.
- Hector.
- Vulcan.
- Cyclops.
- Sonoma.
- Ontario.
- C–2.

Contract built—Contd.
- C–3.
- C–4.
- C–5.
- D–1.
- D–2.
- D–3.
- F–1.
- F–2.
- F–3.
- E–1.
- E–2.
- F–4.
- H–1.
- H–2.
- H–3.
- G–1.
- G–4.

Navy-yard built:
- Florida.

SHIPS LAUNCHED DURING THIS ADMINISTRATION, BUT WILL NOT BE COMPLETED.

Contract built:
- Texas.
- G-2.
- Proteus.

Navy-yard built:
- Jupiter.
- New York.

(The latter launched Oct. 30, 1912, using the new launching trigger device.)

SHIPS AUTHORIZED, BUT WILL NOT BE COMPLETED DURING THIS ADMINISTRATION.

Contract built:
- Nevada.
- Oklahoma.
- Cassin.
- Cummings.
- Downes.
- Duncan.
- Aylwin.
- Parker.
- Benham.
- Balch.
- Sacramento.
- Nereus.
- Jason.

Contract built—Contd.
- Niagara.
- G-3.
- K-1.
- K-2.
- K-3.
- K-4.
- K-5.
- K-6.
- K-7.
- K-8.
- Pennsylvania.
- Destroyers Nos. 51 to 56.

Contract built—Contd.
- Destroyer tender No. 1.
- Eight submarine boats.
- Submarine tender No. 2.

Navy-yard built:
- Palos.
- Monocacy.
- Fleet oilers Nos. 1 and 2.

VESSELS CONTRACTED FOR DURING FISCAL YEAR 1912.

Battleships:
- Nevada.
- Oklahoma.

Torpedo-boat destroyers:
- Cassin.
- Cummings.
- Duncan.
- Downes.
- Aylwin.
- Parker.

Torpedo-boat destroyers—Continued.
- Benham.
- Balch.

Submarines:
- K-5.
- K-6.
- K-7.
- K-8.

Submarine tender:
- Niagara.

Colliers:
- Proteus.
- Nereus.
- Orion.
- Jason.

Seagoing tugs:
- Sonoma.
- Ontario.

Total tonnage of vessels contracted for, 146,210.

NOTE.—The contract for the construction of the gunboat *Sacramento* was awarded to the William Cramp & Sons Ship & Engine Building Co. August 16, 1912.

The awards for the construction of the river gunboat *Monocacy* and gunboat *No. 16*, appropriated for May 4, 1898, and now known as the *Palos*, were made to the navy yard, Mare Island, Cal., after open competition, on August 26, 1912.

VESSELS DELIVERED AND COMMISSIONED DURING FISCAL YEAR 1912.

Battleships:
- Utah.
- Florida.

Torpedo-boat destroyers:
- Mayrant.
- Walke.

Torpedo-boat destroyers—Continued.
- Patterson.
- Jouett.
- Jenkins.
- Fanning.

Submarines:
- E-1.
- E-2.
- F-1.
- F-2.

Collier:
- Neptune.

Total tonnage of vessels delivered, 69,120.

EIGHT-HOUR RESTRICTION.

In order to place contracts for battleships *No. 36* and *No. 37* as provided for in the naval appropriation act approved March 4, 1911, it was necessary to accept bids which materially modified the plans and specifications as originally adopted by the department. The fact that no bids were received in strict accordance with the plans and specifications is undoubtedly due to the application of the eight-hour restriction to these ships.

In order to place the contract for colliers *No. 9* and *No. 10*, the appropriation for which included the application of the eight-hour restriction, it was necessary to accept certain modifications of the department's plans and specifications which were complied with in the contract for colliers *No. 11* and *No. 12*, which were let at the same time, but not under the provisions of the eight-hour restriction.

It has also been noted that in a certain bid received for miscellaneous minor craft the bid was made conditional on the nonapplication of the eight-hour restriction.

These circumstances indicate that the general application of the eight-hour restriction to all ship contracts will cause an increase in the appropriations necessary to obtain vessels of the same characteristics as formerly.

EXPERIMENTAL MODEL BASIN.

The very satisfactory results achieved upon the trials of new battleships and destroyers during the year were due largely to the investigations at the Experimental Model Basin. This establishment at the Washington Navy Yard has carried on for more than 10 years careful investigations of the most desirable forms and proportions for naval vessels with a resulting steady improvement in them. By reference to the large amount of data accumulated it is possible to determine at once the suitable form and proportions or the approximate horsepower required for any type of naval vessel, and the results obtained upon trials of the vessels that have been completed for several years past compare most favorably with those shown in other navies. Without the facilities of the Experimental Model Basin and its accumulation of data it would be impossible to predict with any approach to accuracy the speed to be expected upon trial of a vessel at all novel in type. The recent battleships and destroyers now in the fleet have each been the subject of careful and thorough investigation at the model basin during the preparation of designs, and because thereof every one of them has developed materially greater speed for a given power than could have been obtained otherwise.

The law authorizing the model basin provided that experiments might be made there for private shipbuilders, at their expense, and the department has taken pleasure in authorizing our progressive private shipbuilders and naval architects to make use of the facilities of this valuable establishment.

ELECTRICAL.

Specifications covering the electrical work on the battleships *Nevada* and *Oklahoma* and other craft authorized by recent legislation have been formulated. Plans for light, power, and interior communication for new battleships *Texas*, *New York*, *Oklahoma*, *Nevada*, for gunboats, for destroyers *43* to *50*, inclusive, have been prepared. Fixtures have been simplified and made cheaper and more durable.

The electrical control of searchlights has been redesigned and a new mechanical control has been developed. It is hoped that the improvements made will result in a perfectly satisfactory light for naval purposes.

GUN MOUNTS.

The triple-gun mount has been tested at the naval proving ground and, subject to minor modifications, is satisfactory. The manufacture of the four mounts for the *Oklahoma* and *Nevada* is well underway. This type of mount will be adopted for the four turrets of the one battleship appropriated for at the last session of Congress.

The 14-inch Mark I mounts for the *New York* and *Texas* are nearing completion, and the entire turret design for these vessels is a decided improvement on previous designs. The 14-inch Mark I mount will be installed in the two-gun turrets of the *Oklahoma* and *Nevada*.

POWDER.

Owing to the fact that the United States and France both use a nitrocellulose powder, the deplorable accident to the French battleship *Liberté* furnished a basis for criticism of the American powder and for assertions that similar disasters were to be anticipated in the United States Navy. While the two powders are of the same general type, both being nitrocellulose powders, they differ materially in the kind of solvent used, and French official reports show that their methods of manufacture, blending, and reworking are such as to cause the two powders to be radically different. Recent reports from France are to the effect that all powder now in service is to be withdrawn and replaced by powder exactly like that used in the United States Navy. The specifications under which smokeless powder is manufactured for the Army and Navy are very stringent in requiring absolute purity of all material used, exceeding care in every portion of its manufacture, and step-by-step inspection of the powder from the raw-material stage to the finished product. The regulations regarding stowage, care, and inspection of smokeless powder, both on shore and aboard ship, are comprehensive and are very strictly observed. Since the adoption of the present type of smokeless powder by the Navy Department not one accident has occurred due to decomposition or spontaneous ignition of the powder—a record which is probably not paralleled in any other service.

POWDER FACTORY.

The output of this plant for the past year was about 1,500,000 pounds of new powder and about 970,000 pounds of reworked powder. The amount of new powder manufactured was about 50 per cent greater, and that of reworked powder about 28 per cent greater than for the preceding year. The production costs of new and of reworked powder have been reduced about 10 per cent in each case, owing partly to the increased output and partly to improvements in machinery and methods; this reduction was accomplished in spite of advances in price of sulphur, sodium nitrate, and cotton.

TORPEDOES.

Two new types of long-range, high-speed torpedoes have been built and have passed satisfactory test. A comparison of the characteristics of these torpedoes with those of the best in service abroad indicates that the United States is at least abreast of all foreign countries in this respect.

ORDNANCE MATERIAL FOR OTHER SERVICES.

During the year practically all vessels of the Revenue-Cutter Service have been equipped with 3-pounder or 6-pounder guns of latest types, the ordnance being loaned by the Navy Department to the Revenue-Cutter Service for this purpose.

EXPERIMENTAL FIRING.

In compliance with the wishes of the Committee on Naval Affairs, House of Representatives, exhaustive experiments with armor-piercing projectiles and with relatively thin-walled projectiles carrying a large charge of high explosive have been planned. Special target structures will be built on experimental target A (late the *Katahdin*), and it is expected that all preparations will have been completed by the 1st of December, so that the firing can take place shortly after that date.

NAVAL GUN FACTORY.

The increased volume of work done during the past year, combined with changes in administrative and shop methods and with improvement in facilities for work, has rendered the cost of work less than during any preceding year. The subject of shop management has been given very careful attention with respect to possible application to the gun factory of the methods advocated by efficiency engineers. Certain features of the system have been introduced, and a real increase in efficiency has been secured without antagonizing labor and without introducing any features into the administration or work which are detrimental to the interests of the workmen.

FUEL.

The highest grade of steaming coal from the Pocahontas, New River, Georges Creek, and Eureka fields has been supplied the fleet at the lowest market prices. The department, through its arrangements with coal suppliers, is able to load at short notice about 40,000 tons per day at Hampton Roads and Baltimore.

The Navy still is in need of better fuel depots for the fleet at several important strategic points, notably Guantanamo, Puget Sound, and Pearl Harbor.

The capacities and facilities of these stations are being increased as far as practicable with the funds available.

The fuel stations at Frenchmans Bay, Me., and New London, Conn., have been closed.

Steps have been taken for the construction of fuel-oil tanks, as follows:

	Gallons.
Pearl Harbor, Hawaii:	
1 gasoline tank	90,000
1 fuel-oil tank	1,500,000
Guantanamo, Cuba, 5 fuel-oil tanks, each	1,500,000
Melville, R. I., 1 fuel-oil tank	700,000
Norfolk, Va., 1 fuel-oil tank	700,000
Charleston, S. C., 1 fuel-oil tank	700,000
Key West, Fla., 1 fuel-oil tank	700,000

SUBAQUEOUS TESTS.

Tests have been made to establish the relative efficiencies of coal stored for one year under water, under shed, and in the open at New London, Conn. There remains sufficient coal in these various storages to allow a continuation of annual tests extending over a period of 10 years, and it is proposed to carry out these tests, so that positive and definite conclusions may be drawn on a question which in the past has been a matter more of speculation and opinion than of conclusive experimentation.

RESERVATION OF COAL AND OIL LANDS FOR THE NAVY.

The department, in conjunction with the Department of the Interior, has taken steps to have set aside coal-bearing lands in the Matanuska and Bering River districts of Alaska. This coal is of excellent quality, accessible, and can be transported by rail to the coast for shipment.

The increased use of oil fuel and the fact that coming battleships will burn oil exclusively has led to a need for this fuel. There is abundant oil in the Government lands of Alaska, California, and Oklahoma, and the department is negotiating for the transfer of some of these lands to the Navy, having secured one area in southern California by Executive order that, according to the estimates of geological experts, will produce 250,000,000 barrels of fuel oil. With the completion of the Panama Canal this oil can be transported to the Atlantic coast reservoirs at great saving to the Government over the present price of oil fuel. The addition of five oil-burning destroyers and increased use of oil by battleships fitted to use it has necessitated an increase in the annual contract, and additional tankage will be installed immediately at the present stations.

RADIOTELEGRAPHY.

Improvements in the radio equipment of the fleet and shore stations as regards increased range and prevention of interference during the past fiscal year have been made as rapidly as the appropriations permitted. The purchase of new radio apparatus conforming to the latest requirements is expensive, but the marked gain in efficiency makes such changes imperative.

The high-power station at Arlington, Va., is now in operation, and messages have been exchanged with Key West and Colon. It is the first of the proposed chain of high-powered radio stations, the others to be erected on the Isthmus of Panama, on the coast of California, in Hawaii, Guam, the Philippines, and Samoa. Valuable results as regards the control of the fleet at sea and widespread dissemination of time signals and storm warnings can be obtained when these stations are erected.

The Navy Department is maintaining 41 shore stations and 6 stations on light vessels. An expedition has recently been in Alaska modernizing and improving the older stations there and erecting a new station on the island of Unalga. The chain of Alaskan coast stations is, in conjunction with the inland Army stations, of great importance commercially, as an alternative means of communication in case of breakdown of the cable or land telegraph lines.

As Congress has enacted legislation regulating radiotelegraphy and making obligatory the opening of certain designated naval radio stations to paid commercial business, the radio work and expenses of the department will be largely increased. It will be necessary to modernize and improve the apparatus of coast stations so that the commercial work may be successfully handled. It is expected, at the outset at least, that much of the burden of inspection for adjustment of commercial stations will fall upon this department. But the added work will undoubtedly prove an incentive to increased efficiency and will bring the naval stations into closer touch with commercial companies and their methods of operation, which, it is hoped, will mean a better appreciation of each other's work and cordial cooperation in regulation and the minimization of interference.

The high-powered radio station at Arlington, Va., consists of two 450-foot and one 600-foot self-supporting steel towers, a building containing radio apparatus, laboratories, storerooms, offices, living quarters for operating force, etc., and the necessary ground-wire system, water supply, roads, walks, etc.

Since the introduction of high-frequency quenched-gap radio apparatus the most urgent work of the department has been the modernizing of old installations. This work has been advanced during the past year as rapidly as limited funds and the slow deliveries of contractors have permitted. Much in this line remains to be accomplished, especially in the case of coastal stations, which, as a result of recent legislation, will be thrown open to commercial work. All new ships commissioned within the year have been provided with modern apparatus, but it has not been possible to properly equip the entire fleet because sufficient funds were not available.

With the assignment of two officers for the administration of this rapidly expanding branch it becomes possible, for the first time, to foresee a time when other and intrinsically more important features of this activity will be upon a satisfactory basis. These features relate to the development of radio for tactical purposes, experimentation in connection with purely naval needs, proper supervision and training of operators, and the standardization of material and operating methods.

HISTORIC SHIPS.

The custom of selling unserviceable vessels will before long dispose of the *Constellation*, *Portsmouth*, *Hartford*, and *Olympia*, unless their preservation be especially authorized. Some of these vessels could be preserved almost indefinitely with a small expenditure for occasional repairs, and their names would be a constant inspiration to the Navy and to the country at large to live up to their noble traditions.

RECEIVING SHIPS.

A new system has been inaugurated at the Philadelphia and Boston Navy Yards by which the receiving-ship business is carried on by a vessel in commission in reserve, but with the personnel and other business of the receiving ship so kept that the personnel may be readily transferred and the vessel assigned to any other duty without delay. This system requires fewer officers and the cost of maintenance and repair of the old vessels, unserviceable for other purposes, is saved.

PROGRESS IN ACCOUNTING WORK.

In previous reports attention has been called to efforts to revise accounting and reporting methods and procedure. Recognizing that naval efficiency in no small measure depends on the efficiency with which the business side of the activities of the department are carried on, the introduction of more effective methods of obtaining prompt, accurate, and complete information was among the first problems to which attention was given.

In 1909 a fair beginning was made. In 1910 a firm of public accountants was employed to assist the technical corps of the Navy, at which time a complete system of cost accounting and reporting on work by jobs was established in those military yards that performed industrial work.

In 1911 arrangements were made to continue this work in cooperation with the President's Commission on Economy and Efficiency, and on July 1, 1912, a complete system of accounting for every branch and bureau of the service was devised and installation was begun. The purpose has been to supplement the job-cost accounting which had been installed in the military yards doing industrial work in such manner that the department will be able to have a complete, accurate, and prompt report on the business transactions of the whole department, with proper supporting details relating to each of its many activities—one which will enable the central administrative officer to have brought before him currently the facts necessary to exercise intelligent direction and control.

COST ACCOUNTING AT NAVY YARDS.

As the cost accounting established at Boston in July, 1909, and extended to the other military yards doing industrial work has developed, it has been found possible to extend the system in such a manner as to include in the indirect or overhead many charges which heretofore have been omitted. These charges, however, can not actually be made against appropriations and job orders, owing to existing statutes, but will be carried as a memorandum which will give most important data. The charges which it is proposed to thus include in the indirect expense in memorandum form until legislation is obtained are pay of clerical and drafting force and the charges for renewals and replacements when estimated to exceed the amount as laid down in the accounting instructions.

CERTAIN APPROPRIATIONS SHOULD BE AVAILABLE UNTIL EXPENDED.

Section 7 of the sundry civil act, approved August 24, 1912, provides that, with certain exceptions, appropriations made in any annual appropriation act shall not be available beyond one fiscal year, unless they are made so available in express terms. Certain appropriations for the Naval Establishment, such as public works, increase of the Navy, and special ordnance appropriations, which have heretofore been considered by this department and the accounting officers of the Treasury as available for obligation until expended, are, under the provisions of this section, available only for a single fiscal year.

Unless appropriations of this character are available until expended the department will be seriously embarrassed and the annual appropriations will be unduly swelled, as it will be necessary to have appropriations sufficiently large to meet the maximum progress on vessels and other large projects under construction. Then, if progress is less rapid than anticipated, large balances would be turned back into the Treasury only to be reappropriated in subsequent years.

Work of the class covered by these appropriations—new vessels, dry docks, special ordnance work, etc.—as a rule requires two and one-half years or longer for completion.

The amounts involved are as large as those in the five classes of appropriations which are available for expenditure until exhausted or completion of the project, viz, "Rivers and harbors," "Lighthouses," "Fortifications," "Public buildings," and "Pay of the Navy and Marine Corps."

In connection with work of this magnitude considerable time is necessarily required for the preparation of plans and specifications and the making of contracts, and in such cases actual work may not be started until near the close of a fiscal year. Where the work is performed by contract the actual performance of the work may extend beyond the fiscal year. However, certain classes of work and work in certain localities can not be economically constructed by contract, but should unquestionably, in the best interests of the Government, be constructed by yard labor. At times, as in the case of certain new vessels, the work is required by law to be performed at a navy yard.

The department therefore earnestly recommends that appropriations of this character be restored to their former status of permanent or continuing appropriations.

GENERAL STOREKEEPING SYSTEM.

By having large purchases of articles ordinarily used assigned to different yards as distributing points uniformity in the articles used by different vessels has been secured and a considerable reduction in cost has been effected.

The manufacture of certain articles has been concentrated at those yards where it has been demonstrated that the work can be done most economically.

Efforts have been made to diminish excess and inactive stock by having general storekeepers at the various yards forward to other yards lists of material for which there has been little or no call for an extended period.

EMPLOYMENT OF EXPERT ON SCRAP METALS.

During the past year the department has employed the services of an expert in all matters pertaining to the handling and classification of scrap metals and miscellaneous material usually condemned for sale at the various navy yards. This expert has been engaged at the yards in educating Government employees as to the proper classification of scrap metals and in devising means by which material heretofore wasted could be saved to the Government.

NAVY YARDS AND STATIONS.

ADMINISTRATION OF THE YARDS.

The present subdivision of work in the navy yards into a hull division and a machinery division has been eminently satisfactory. It has placed under one division all work pertaining to the structure of the ship and under the other all pertaining to her machinery, of whatever nature. Each division is under the direct supervision of an officer specially skilled in the work he controls, and the organization is such that efficient cooperation exists between the two divisions. The practical result is shown in the promptness with which repairs are undertaken and completed, the efficient manner in which work is done, and the economy that has been effected.

A closer departmental control of the administration of the navy yards and a more systematic advance in consolidation and coordination have resulted during the past year through the operation of the office of director of navy yards.

INSPECTIONS AT YARDS.

The Board of Inspection for Shore Stations has materially assisted in the economy of the present administration by its scrutiny of the estimates of navy yards and its broad, impartial view of the expenditures proposed therein. This board has been, and is now, engaged in a comprehensive compilation of navy-yard data which will afford a valuable means for comparison among the different yards. The board is also engaged in the preparation of the outlines of organization of the naval establishment to the final units of the service as of date July 1, 1912. These outlines have been called for by the President in connection with the Commission on Economy and Efficiency.

As the navy yards are primarily military adjuncts of the fleet, it is of exceeding importance to national safety that the Department should have definite knowledge as to their existing capacity and efficiency. The supervision essential to such knowledge can best be effected by extending the work of the Board of Inspection for Shore Stations to efficient and periodic inspection of such stations.

FUTURE OF NAVY YARDS.

It is essential to naval progress and efficiency that the development of the several navy yards should be concomitant with necessary augmentation of the fleet, and such efficiency can only be brought about through some central agency, which will carefully investigate the military usefulness of each yard, both in relation to its strategical, commercial, and manufacturing advantages, as well as in regard to its adaptability and capacity for contributing to the endurance and efficiency of the fleet. The Joint Army and Navy Board reported that the ideal plan for the Navy would be to have two great naval bases on the Atlantic coast in harbors which would receive and could maintain the entire fleet and its auxiliaries.

As a result of the policy of spasmodically developing various navy yards, independent of their particular adaptability for contributing to the efficiency of the fleet, there has undoubtedly been incurred heavy and needless expenditure in the past, but the present policy is that the military value and usefulness of all navy yards is best subserved by limiting their extension along such particular lines as will promote such efficiency.

It may be noted here, in connection with the matter of giving up navy yards, that, after the opening of the canal, when the fleet will spend part of its time in the Pacific Ocean, the services of the eastern yards will be much less in demand than they have been heretofore. Should it be deemed wise in the future for the fleet to spend half of each year on the Pacific coast, some of the navy yards on the eastern coast will automatically close from lack of work.

COORDINATION.

In the administration of the navy yards the prime requisite is to secure that spirit of coordination which alone permits of economical management and produces excellent results. The influence of the work and methods obtained through bringing the offices together, as was done at Norfolk, Mare Island, and Puget Sound, has also spread to those yards where central offices are still lacking, so that all along the line the efforts to work together are most gratifying.

Besides the work of inaugurating a uniform system of modern management at navy yards, much work of a miscellaneous character has been accomplished through the office of director of navy yards, in its "clearing house" capacity for navy-yard matters requiring speedy action and centralized consideration. Adjustment of pay of workmen, reducing the great number of trade ratings, and bringing about a closer approximation of similar pay for similar duties in supervisory and classified force have been and still are being pressed to a bettering of conditions. Threatened strikes have been dissipated and labor questions satisfactorily settled without serious trouble. "Class" designation of workmen has been abolished.

A uniform system of "shop stores" has been formulated and put into operation, the apprentice school system at navy yards has been extended, and the consolidation of shops has been continued.

A set of rules upon which can be operated all navy yard skilled labor under civil-service classification has been drafted by a special board in conjunction with the Civil Service Commission.

The subject of protection of yard workmen from accident has been thoroughly investigated, and illustrated lectures by the director of the American museum of safety have been given at many of the yards upon the design and application of the most modern appliances for safeguarding men working with or near moving mechanism. Instructions have been issued to all yards, bringing about a monthly inspection of all shops expressly to maintain proper safety devices at all points showing necessity therefor.

SHOP MANAGEMENT.

In the matter of improving and unifying the system of shop management at the yards, progress has been made with a view to securing results of permanent value. To the main characteristics of the Vicker's system have been added other features necessary to fit it to the work of general repairs and to accommodate the requirements for relegating costs of work to the several appropriations and bureaus. The details for operating the system have been finally worked out at Norfolk and have been published to the other yards for adoption.

To properly install this system of shop management requires a central administration office at each yard so as to bring together the officers and the clerical and drafting force within one building or in contiguous buildings. There is included in the estimate for 1913–14 a minimum amount of money required to bring about this most important consolidation at those yards still unprovided for, and it is earnestly requested that Congress appropriate the money asked for and that the funds be made immediately available in order not to delay the necessary construction.

OVERHAUL PERIODS.

Too much importance can not be attached to the recognition of and adherence to the existing system of home-yard assignments and scheduled overhaul periods. Efforts have been directed toward the maintenance of a steady flow of work at navy yards, and consequent retention of a class of efficient and capable employees.

Ships that have undergone extensive repairs and overhaul at various navy yards during the fiscal year 1912 and returned to active service or reserve.

Portsmouth, N. H.	Boston.	New York.	Philadelphia.	Norfolk.	Mare Island.	Puget Sound.
Tennessee. Montana. Wisconsin.	New Jersey. Rhode Island. Georgia. Nebraska. Birmingham. Nashville. Chester.	North Dakota. Connecticut. New Hampshire. Delaware. Salem. Tacoma. Dixie. Machias.	Idaho. Minnesota. Connecticut. Montgomery. Maine. Missouri. Mississippi.	San Francisco. Louisiana. Kansas. Vermont.	California. Maryland. Cincinnati. Raleigh. South Dakota. Alert. Annapolis. Vicksburg.	Pennsylvania. Cheyenne. Colorado. St. Louis.

The beginning of the fiscal year 1912 was marked by the completion of the extended overhaul of the *Maine*, *Missouri*, *Ohio*, and *New Jersey* and the addition of these four vessels to the Atlantic Fleet, thus beginning the 21 battleship fleet.

There remained, however, on July 1, 1911, at the various navy yards a considerable number of vessels "in ordinary," undergoing repairs and unavailable for service. In particular there were the *Wisconsin*, *Kearsarge*, *Kentucky*, and *Alabama*, three cruisers of the *St. Louis* class and four cruisers of the *Denver* class, together with several minor vessels.

Systematic efforts were made to complete this work, and in the early spring of 1912 practically everything undertaken had been accomplished. On March 15, 1912, 100 per cent of our battleships were for the first time in recent years materially ready for service. A shortage of personnel and a due regard for the possible demands of the active Navy for funds prevented the commissioning of the *Kentucky*, *Kearsarge*, *Illinois*, and *Alabama* and the *Denver* class until just before the beginning of the new fiscal year. The *Wisconsin* being in second reserve was commissioned and placed in the reserve fleet at Philadelphia during the spring.

Attention is invited to the fact that as the result of mutual arrangement and agreement between this department and other coordinate branches of the Government the facilities of our navy yards and stations have been placed at the disposition of the War Department, Treasury Department, and the Department of Commerce and Labor, and that a considerable amount of work, at prices that have compared favorably with outside firms, has been accomplished on the vessels belonging to the above departments.

GUANTANAMO.

A comprehensive scheme for the naval station at Guantanamo has been worked out and approved by the department. Emergency repairs can be made with the plant appropriated for, although the repairs will be limited to those that can be made on a ship not in dock. An ample fresh-water supply is being provided for as well as an adequate supply of fuel for the fleet.

Construction work has been actively prosecuted during the past year, and at the present time there have been completed the station wharf, the fuel-oil wharf, foundations for several of the oil tanks, and 60 per cent of the filling in of the site; steel work for all the shop buildings has been delivered and the erection is progressing rapidly. These buildings will be ready for the installation of equipment in January, 1913. A large part of the power-plant equipment is on the ground, and the foundations for the machinery are being placed. The plant should be completed sufficiently to furnish power by the end of the present fiscal year. Two fuel-oil tanks, water tank, and one gasoline tank have been shipped, and the pipe line from the oil tanks to the wharf is now being laid. The remaining fuel-oil tanks have been contracted for. All the materials for construction work at the magazines are being assembled.

The two 250-foot self-supporting steel towers for wireless station are under advertisement and will be erected during the coming spring. Investigations are being made of the possible sources of a permanent water supply. Borings have also been taken and test piles driven on the site of a possible dry dock. The location of this station with respect to material and labor markets has made it extremely difficult to carry on construction work with rapidity. Every effort is being made, however, to secure its completion by the end of the present fiscal year.

PEARL HARBOR.

At Pearl Harbor the dock and repair plant now being constructed will permit repairs to be made of any character on the largest ship that can pass through the locks of the Panama Canal.

The building up of this naval station has gone steadily forward. The dredging of the 35-foot channel from the sea to the naval station, a distance of over 4 miles, was practically completed December 16, 1911, on which date the U. S. S. *California* entered the harbor and anchored off the naval-station site.

The construction of shop buildings, administration building, power-plant building and machinery, storehouse, marine barracks, quarters, streets, sewers, and miscellaneous improvements is under way and will be completed during the coming winter. Special attention is being given to the development of this station, as its importance will be greatly enhanced on the completion of the Panama Canal, and everything possible is being done to prepare it for active work at the earliest practicable date.

PANAMA CANAL.

The Navy Department has forwarded to the War Department the Navy's needs with regard to the fueling, docking, and repairing facilities at the terminals of the Panama Canal, and most of these will be incorporated in the general scheme for the completion of the terminals. These include extensive docking and repairing facilities at the Balboa terminal, and coal, oil fuel, and lighterage facilities at both terminals. While this scheme does not fulfill all of the conditions laid down by the General Board, it is capable of future expansion in that direction. As now designed it will furnish at least a good emergency repair station, with ample fueling facilities. Future development of the plant should take into consideration the needs of the fleet in time of war and any enlargement contemplated should be passed upon by the Navy Department.

If the Panama Canal Commission will build their colliers for transporting coal, after designs which the Navy will furnish, it will be a splendid piece of business economy and show wise judgment on the part of our Government, because they will serve two purposes—the Panama Canal Commission in time of peace and a reserve for the Navy for war purposes. The high-power radio station in the Canal Zone will be erected and operated by the Navy for communication with Washington and with the stations at San Juan, Key West, and Guantanamo. It may be interesting to note that the opening of the Panama Canal may have an appreciable effect on the price of oil fuel, as it makes the California oil fields available for supplying the Navy.

CLOSING OF NAVY YARDS AND COALING STATIONS.

In pursuance of the department's policy of dispensing with such navy yards and stations as are not necessary to the upkeep of the fleet, the naval stations at Pensacola, New Orleans, San Juan, Culebra, and Sitka have been closed. The coaling plants at Frenchmans Bay, Me., and New London, Conn., have also been shut down with a view to their ultimate abandonment and disposal of the land. Several hundred tons of coal remain at each of these coal plants; this will be removed as soon as opportunity permits. The old Spanish floating dock at Pensacola had deteriorated through age to such an extent as to be rendered no longer useful for naval purposes. It was therefore sold.

The floating dock at New Orleans is in condition to dock vessels up to 16,000 tons displacement. At present its use is confined to docking merchant vessels and a few small Government craft. It is recommended that legislation be enacted to permit the Secretary of the Navy to transfer this dock to such locality as occasion may require.

The site of the naval station at San Juan, Porto Rico, has been turned over to other departments for uses of the Lighthouse, Weather Bureau, and insular Government.

DOCKING FACILITIES.

In 1900 battleships of about 15,000 tons had been authorized and the Government had completed or under construction six graving docks and two floating docks in which the largest ship could be docked. In 1902, 1903, 1904, and 1905 Congress authorized the construction of battleships of 16,000 tons, which were still within the capacity of the larger dry docks, there being an increase of but 1,000 tons in six years.

In 1906 and 1907, however, authority was given for the construction of battleships of 20,000 tons, followed by 22,000 tons in 1908 and the *Wyoming* and *Arkansas* of 26,000 tons in 1909. When the construction of the last two ships was commenced the Government had no dry dock built or building of sufficient size to receive them, so rapid had been the increase; that is, from 16,000 tons to 26,000 tons, or 62½ per cent in the size of ships in the four years ending with 1909.

There were then, however, under construction three large dry docks at New York, Puget Sound, and Pearl Harbor, respectively.

NEW YORK DOCK.

The work on Dry Dock No. 4 at New York had been under way since 1905 under two successive contracts. The original contract for this dock provided for a length of but 523 feet 6 inches and a width of 93 feet. The length was increased to 592 feet 6 inches in 1908. Great difficulty had been met on account of the nature of the soil, which tended to flow into the excavation. On October 2, 1909, the second contract was annulled for lack of progress, and it was decided to adopt a new procedure and to limit the request for proposals for the completion of the dock to five well-known contracting firms of financial strength and large experience in works of similar nature and magnitude. Satisfactory proposals were received and a contract was entered into during this administration (November, 1909) which permitted the work to be carried on pending action by Congress on the recommendation for an increase in the size and cost of this dry dock to make it available for ships of the *Wyoming* class and larger. The final contract was made during this administration (September 1, 1910), providing for a dry dock with a length of 694 feet 6 inches from coping at head to caisson when in outer gate seat, a width at elevation of top of keel blocks of 112 feet, and a depth over the sill at mean high water of 35 feet. At the same time a radical change was made in the design providing for reenforced concrete carried on pneumatic caisson piers, a construction similar to that employed in the foundations for high buildings but novel in dry-dock design. Under the last contract the work was pushed, and the dock has been completed and officially accepted. It will dock the largest battleship yet contemplated.

PUGET SOUND DOCK.

A contract was made on September 2, 1908, for the largest dry dock which had yet been authorized, to be constructed at Puget Sound. This dry dock was to have a length of 827 feet 6 inches and a width of about 100 feet. In order to provide for ships of the beam of the *Wyoming* and larger, a board was appointed during this administration (April, 1910) to determine the change in contract price involved by widening this dock so as to give a width of 110 feet at the keel blocks, which corresponds to that of the locks of the Panama Canal. In the meantime Congress had been urged to provide the additional funds required for this increase in width, and the act of June 24, 1910, raised the limit of cost to $2,300,000, and a supplemental agreement was promptly entered into for widening the dock. The site for this dry dock was unusually favorable and the work has progressed smoothly. The dock is now essentially completed, with the exception of the removal of the temporary cofferdam across the entrance and a small amount of dredging. It is expected that the dry dock will be ready for service about January 1, 1913.

PEARL HARBOR DOCK.

The original appropriation for the dry dock at Pearl Harbor was $2,000,000, and an attempt was made to obtain a dock 1,000 feet long between head and outer gate seat with an intermediate caisson dividing the dock into two sections for use in docking smaller vessels. Plans and specifications were prepared on this basis and bids were opened on February 13, 1909. All proposals were much in excess of the appropriation and the Secretary recommended that the limit of cost be raised to $3,500,000. This increase was not authorized, and although the need of a dock of the maximum length was fully appreciated it was not considered expedient to delay all construction until the necessary increase in cost had been authorized by Congress, so that on May 22, 1909, bids were again opened for a dock with a length of 591 feet 6 inches. Satisfactory proposals were received and the contract was awarded. A dock of this size would not take the ships of the *Wyoming* class, and authority was obtained during this administration to increase both the length and the width, the former to

791 feet 6 inches and the latter to 110 feet. The appropriation act of August 22, 1912, authorized a further increase in usable length to 1,000 feet. The cost of this change has been determined by a board and supplemental agreement is about to be entered into with the contractor. This dock will be the largest dock so far authorized by the United States. Serious difficulties have been met, owing to the nature of the material underlying the site, but it is believed that they have been overcome and that the work will now be pushed to completion without serious delays or further complications.

NORFOLK DOCK.

Dry Dock No. 3 at Norfolk, which had recently been completed, was of satisfactory width, 98 feet at keel blocks and 136 feet at coping, but too short to receive the new ships. An appropriation for tearing out the old head and building a new head section to give a length of 723 feet was made during this administration (June 24, 1910). Plans and specifications had already been prepared and the contract for lengthening the dock was made on August 6, providing that the work should be completed within 15 months and that the dock should be out of service but 4 months. The work was completed on this schedule and the dock will now receive the largest battleship authorized or contemplated.

BOSTON DOCK.

Dry Dock No. 2 at Boston had been completed in 1905 with a length of 738 feet, but the cross section of body of the dock had been made to conform to the typical battleship cross section of that day. Later practice in battleship construction has tended toward a more nearly rectangular midship section for battleships, and it was found that by cutting back the altars near the bottom of the dock its usefulness would be much increased. The sum of $15,000 for this work was appropriated during this administration (Mar. 4, 1911) and made immediately available. Plans had been previously prepared and work was started and completed by yard force. As originally constructed the dock would safely receive vessels of the *Delaware* class, 20,000 tons; the dock will now receive ships of the *Utah* class of 21,825 tons.

MARE ISLAND DOCK.

Dry Dock No. 2 at Mare Island was commenced in 1899, but great construction difficulties were encountered, and the contract was twice annulled. The dock was finally satisfactorily completed and accepted on May 14, 1910, and will receive battleships of the *North Dakota* class 20,000 tons.

It will be seen that upon completion of dry docks now under construction the Government will possess at Pearl Harbor a dry dock which will receive any ship which can pass through the Panama

Canal, and at Puget Sound and New York docks which will be wide enough to take any ship which can pass through the canal, but limited in length to 800 and 680 feet, respectively, allowing reasonable clearances for docking and undocking. These three docks, with one at Norfolk, are the only ones which will receive the *Wyoming*, *Arkansas*, *New York*, *Texas*, *Nevada*, *Oklahoma*, and *Pennsylvania*. It will be further noted that there are but two of these dry docks on the Atlantic coast, one on the Pacific coast, and one in the Hawaiian Islands, so that should one of the large battleships receive injuries which would require it to remain in dry dock for a considerable period, or should the dock itself be placed temporarily or permanently out of service, a dangerous condition might result.

FLOATING DOCK.

The construction of a floating dock of about 40,000 tons capacity is recommended.

GRAVING DOCKS.

With a view to the natural increase in size of vessels, a 1,000-foot dock for the Atlantic and one for the Pacific coast is recommended, the locations to be determined later.

FORTY-FOOT CHANNELS.

The department approves the recommendation of the General Board that channels leading to all the first-class docking, repair, and supply yards be dredged to a depth of 40 feet at mean low water and to a least width of 750 feet and greater if practicable. Action in this respect is necessary to insure safe passage for war vessels of increasing draft.

PERSONNEL.

HEALTH CONDITIONS OF THE NAVY.

The general health of the Navy from January 1 to December 31, 1911, has been good and shows a slight improvement over that for the previous year and a marked improvement when compared with that for the "average year." The reduction in damage rate from injuries has been more marked than that from diseases, both for the previous year and for the "average year." The death rate from all conditions shows a marked reduction, both from that of the previous year and of the "average year." Among the natives of Guam the births have exceeded the deaths, while in Samoa the reverse has been true. From January 1, 1912, to June 30, 1912, 26 of the naval personnel were admitted to hospitals other than naval hospitals, 10 to hospitals beyond the continental limits of the United States, and 16 to hospitals within these limits. Further, there have been 2,493 supernumeraries treated by the service during the calendar year 1911, with a total of 43,112 sick days, many of whom were officers and men of the navies of foreign powers.

Campaigns against tuberculosis, typhoid, insect-borne diseases, and lead poisoning have been instituted. Typhoid prophylaxis has been administered to practically the entire navy personnel without a single serious result, and no authentic case of typhoid fever has been reported in an individual who had received the three injections required.

The adaptability of incinerators for garbage and waste to ship use and the advantages accruing therefrom have been amply demonstrated by their trial on vessels of the battle fleet.

The method of heating and ventilating ships by the combined system is a good one in principle, but as at present installed on certain vessels has not met with success. The defects that have become evident through practical application can, it is believed, be rectified.

There has been a marked improvement in the conditions surrounding the barber shops, both afloat and ashore.

An investigation of the air in submarines has been inaugurated, and it is apparent already that it will be of great value to the service.

PHYSICAL TRAINING.

Attention has been given to developing a proper system of physical training that may be uniform throughout all branches of the Navy to replace the existing physical drill, which does not inculcate habits of care, strength, and activity to the degree attained by the more scientific method, which has already been introduced at the Naval Academy with marked success. A special feature has been made of swimming, all midshipmen being required to qualify thoroughly before receiving their diplomas; and a higher standard being established for the swimming qualification in the fleet for both officers and men.

The officers' physical test has been changed to a 10-mile walk monthly, which has removed any irksomeness, while increasing the benefit derived.

FLAG OFFICERS.

The necessity for admirals and vice admirals for a properly administered fleet should receive immediate attention from Congress. No provision is now made for any except the lowest grade in flag rank, that of rear admiral. The recognized grades, in order, are admiral of the fleet, admiral, vice admiral, rear admiral. A battle fleet should be commanded by an admiral; vice admirals should command squadrons; rear admirals should command divisions. Our great battle fleet is commanded by a rear admiral, with four other rear admirals under his orders. This violates the principle of rank, which is that each separate degree of duty and authority, all depending one on the other, requires a separate rank.

It is not a question of our naval officers, as individuals, being placed in inferior positions when they meet the fleets of other nations. It is that in the eyes of other nations we put ourselves in the position of an inferior.

History has shown that a proper organization of an army or a navy requires various grades.

The fleets are much larger to-day, with divisions and subdivisions, and there is needed, for proper organization, admirals, vice admirals, and rear admirals, just as other nations have them. Nineteen nations have ranking naval officers above that of rear admiral.

We have more vessels in commission than most of the nations giving higher rank to their officers; yet when our fleets enter foreign waters our naval officers are compelled to yield precedence to ranking officers of smaller nations. This is not an indignity to the man so much as to the United States.

The fact that the grades of admiral and vice admiral do not exist in our Navy is inconsistent with the size of our fleet and with the dignity of this country. When it is realized that *nineteen of the navies of the world include at least vice admirals—nine of them admirals—and Japan, Germany, and England admirals of the fleet in addition*, it is felt that this matter should be corrected in our service by appropriate legislation.

The following list of the flag officers of all nations, shows that in any combined operations or international functions where naval forces are present *the United States would take the lowest place in rank.*

Country.	Admiral of fleet.	Admiral.	Vice admiral.	Rear admiral.
England	3	12	22	55
Germany	2	4	13	21
France			15	30
Italy		1	8	18
Austria		2	2	10
Spain		[1] 1	8	9
Russia		8	18	28
Japan	1	7	17	45
Holland		(4)	3	2
Denmark			1	3
Norway			1	1
Sweden			2	2
Argentina		1	2	7
Brazil		[2] 2	[2] 2	[2] 10
Chile			[2] 2	7
Peru			(3)	(3)
China			1	[2] 4
Portugal			2	5
Turkey			4	8

[1] Grade exists, but is now vacant.

[2] One acting.

[3] Yes; number doubtful.

[4] Lieutenant admiral; exists, but is now vacant.

It is recommended that a bill providing for increased flag rank, and similar to the provision contained in the last naval appropriation bill as reported to the House, be reported early in the session and separate from the appropriation bill.

QUALIFICATIONS OF OFFICERS.

During the last few years special study has been made of reports required to be rendered periodically on officers. The requirements have been thoroughly revised and so stated and arranged on the new forms for making the reports that the data may be readily classified. By this means the assignment of duty according to qualifications and experience and the more even distribution of duty on the various stations should be accomplished with facility and certainty. These records will in time give a complete history of the qualifications of every officer from date of admission in the service.

We want our flag officers to be strong, alert, active men; men of the highest professional attainments and able to endure the physical and mental strain of dangerous and protracted operations during hostilities. To reach this standard means excellence in all the junior grades.

ASSIGNMENT OF FLAG OFFICERS AND CAPTAINS.

Until recently there has been no system actually worked out in detail showing the officers who will probably be selected for important duty in the future. Now that a system is in operation it should be corrected monthly, as it is impossible, on account of casualties, retirements, etc., to hold absolutely to any detailed sheets of assignments for a considerable period of time.

It is only by some such definite and written arrangement that the best interests of the service are served. Haphazard appointments are prevented, and as a general rule the best man for any particular important command is chosen long beforehand, and his duty as a captain is arranged with special reference to his training for the assignments he will have as a flag officer.

In the hands of the aids—men of large experience and of mature judgment—has been placed the responsibility of recommending to the Secretary the assignments to important duty of officers in the grades of captain and rear admiral.

In the preparation of the assignment sheet certain definite conclusions were reached, and it was found that the system could be in full operation in a year or two.

It is evident that no officer should be retained at sea up to the date of his retirement. In order that the information that he has gained may become of use to the Navy at large he should, after being in command of one of the large fleets, be ordered to a station, such as the General Board, where he can properly present the important mass of information he has gained during his service. This reason alone would require that he be ordered ashore some six to eight months before his date of retirement. But the ideal condition for the best interests of the service would be to choose as commanders in chief, when other qualifications are equal, men who have considerable time to serve as flag officers.

Their duty should be so arranged that they hoist their flags at sea as division commanders as soon as they have reached the grade of rear admiral, and that after a period of about a year on this duty they should, if recommended for commander-in-chief of a fleet, hold the latter post for from a year and a half to two years. In reviewing the list of officers and taking into consideration the time they will have to serve in flag rank, it is found that this general scheme can be admirably worked out and that officers who are selected for commanders-in-chief will, on the completion of that duty, have still several years more to serve, and can then be assigned to the important billets on shore.

By limiting the time of division commanders to from 12 to 16 months there is made available a great number of flag officers who have actually been in command of divisions in the fleet and who can be called upon as experienced flag officers at any time should hostilities threaten.

By the above general arrangement it is seen that in case of hostilities the country would always have at least 12 officers to choose from for the chief commands afloat—officers who have had experience as division commanders and commanders-in-chief of the fleets, and who would have some time yet to serve.

It would appear that officers having considerably less than three years to serve in flag rank should not be assigned as flag officers in the active fleet, for they would not be available for duty as commanders-in-chief, nor would they have a number of years after completion of sea duty to discharge important duties on shore and be available in case of hostilities.

Since there are only a certain number of available flag commands afloat, officers nearing the retiring age, if serving as division commanders in the active fleet, would be taking the duty which should, *for the best interests of the service*, be properly assigned to officers who have longer to serve.

It will be seen that the duration of time in the captain's grade is from four to nine years. It should be stated, as a general rule, that captains should be sent to command large ships as soon as they have been promoted, and that such of them as are intended for future positions in the fleet as flag officers should have two years in command of one of the battleships in the active fleet (for officers whose time in the captain's grade is but four years). Officers who remain in the captain's grade for a period long enough to give them two commands at sea should go first to the older ships for two years, and the most modern ships should be given as second commands to those who have made a success during their first service afloat as captains.

In the assignment of officers to important duty in navy yards, special attention has been paid to making the tour of duty from three to four years.

PROPOSED PERSONNEL BILL.

The passage of a personnel bill, including the amalgamation of the various corps, as shown in the proposed bill, is strongly urged. This bill has now been brought up to date to conform to the new personnel measures passed last session. It has been considerably simplified and shortened, because the graduate midshipmen are now commissioned ensigns.

It is the department's desire to have this bill become a law in its entirety, as piecemeal legislation on such an important subject tends to defeat the object in view.

The proposed bill is the scientific and logical disposition of the pressing personnel question and is the result of long and careful study of the entire matter.

Its cardinal feature bases the personnel on the battleship and cruiser tonnage of the Navy and allows the department to estimate the numbers needed each year, the estimate in no case to exceed the full strength as determined by the tonnage, and leaves to Congress the actual numbers to be allowed.

Connected closely with these numbers is the proposed rearrangement of the grades and the time necessary to serve in each.

These three features are vital to the service and, coupled with elimination, will insure a proper training in each grade, as well as furnish young officers for flag rank with sufficient time in the highest grades to thoroughly master the tremendous responsibilities which attend the command of a modern fleet.

This question has been studied from all points of view, both foreign and our own, and the proposed bill affords a safe and sane solution of a subject which every nation possessing a navy must face.

In addition to producing efficiency, the bill will not increase the comparative cost of the Navy. Owing to retirements at graded rates of pay there will be in the future a saving in the total sum appropriated for the Navy personnel.

The present organization of the personnel is not economical. The proposed bill will make it so, and at the same time greatly improve the efficiency of the service.

At the end of this fiscal year the law relating to the increased numbers of midshipmen at Naval Academy comes to an end. Sections 7, 8, and 9 of the bill take cognizance of this matter and should become law whether the bill passes or not.

THE NAVAL WAR COLLEGE.

An 18 months' course of instruction was instituted at the United States Naval War College, Newport, R. I., on June 1, 1911, and has been in effect 16 months. The course during the four summer months of 1911 was identical with the short, or summer, course, but in the summer of 1912 the long-course officers took up an advanced line of work distinct from that of the newcomers.

Naval War College work is professional training, dealing with military employment, and is chiefly concerned with the question of leadership—promoting the military efficiency of the individual rather than that of his command. The subjects of study are international law, national and military policies, strategy, tactics, and logistics, but administration and organization are included as a foundation upon which all strategy and tactics must rest. The international-law situations are brought before the annual summer conference and the solutions are published by the department. These are eagerly sought by public libraries and students of international law, have a high reputation abroad, and have had a marked effect in modifying recent development of international law.

OUTPUT OF NAVAL ACADEMY.

This year 265 midshipmen entered the Naval Academy; next year there may be as many, or even more, on account of the reapportionment of congressional districts. After June 30 next, however, the law provides that Senators, Representatives, and Delegates shall have only one appointment instead of two. This law, passed in 1903, contemplated that the increase of officers then provided for would be sufficient to meet the Navy's requirements by 1913. This expectation has not been realized, and the shortage of officers, though less than before, still makes a serious limitation on efficiency and curtails work of wide usefulness.

The present capacity of the Naval Academy is sufficient to furnish officers for the line and staff of Navy and Marine Corps in adequate numbers for many years to come; but if the number of midshipmen be cut in half, the relative cost of educating them will increase, while the existing shortage in the Navy will grow rapidly worse. There is little likelihood of more graduates from the Naval Academy than the Government will require, even if the school be kept up to its full capacity of 945 in all four classes; but if there should be a surplus, they would still be available as a reserve in civil life. Such a reserve was of great value in the War with Spain. On the other hand, if too few are graduated, no relief of the resulting shortage in the service can be realized for four years. It was a situation of this kind that seriously embarrassed naval administration during the years directly following the Spanish War.

A continuation of the present number of appointments is therefore necessary, and a provision to this effect is incorporated in the draft of the naval personnel bill hereinbefore mentioned.

NAVAL ACADEMY CURRICULUM.

The abolition by act of Congress of the two years' cruise for graduate midshipmen before being commissioned as ensigns, and the development of postgraduate courses for officers in several special branches, have led to a revision of the Naval Academy curriculum, with the general aim to make the institution more thorough in the elements indispensable to the general training of all naval officers, thus at the same time laying the foundation for further study in the more abstruse and special subjects by postgraduate courses for those who demonstrate aptitude for them.

The changes will go into effect in the main with the opening of the academic term in October. One marked feature is the establishing of Spanish as the foreign language of paramount importance in the course in modern languages, with French next. The new form of practice cruise necessitated is already in effect, first and second class midshipmen being distributed among the battleships of the Atlantic Fleet for the summer months, to their great advantage in acquiring familiarity with the duties of general naval service.

SCHOOL OF MARINE ENGINEERING.

The School of Marine Engineering has completed with marked success the third year of its existence. The interest held by the service in this school and the desire of young officers to perfect themselves in engineering are evinced by the large number of applications for instruction at that school. In addition to the regular course, lectures were delivered on various technical subjects by Mr. L. W. Spring, Prof. Henry Fay, Mr. Sidney A. Reeve, Mr. W. R. Hulbert, Mr. G. C. Davison, Prof. Ira N. Hollis, Mr. J. G. Callan, Mr. Henry G. Chatain, Mr. J. H. Nicholson, Dr. Rudolph Diesel, Dr. Wm. H. Tolman, Mr. Maxwell W. Day, and Dr. D. S. Jacobus. The course during the next year will be considerably extended. During the summer months the classes are on duty under instruction at the largest inspection districts and at the New York Navy Yard.

CIVIL EMPLOYMENT OF OFFICERS.

The naval appropriation act approved June 10, 1896, contained the following provision (29 Stat., 361):

> * * * That hereafter no payment shall be made from appropriations made by Congress to any officer in the Navy or Marine Corps on the active or retired list while such officer is employed, after June 30, 1897, by any person or company furnishing naval supplies or war material to the Government; and such employment is hereby made unlawful after said date. * * *

The department recommends that this clause of the act of June 10, 1896, be repealed.

It is understood that this clause was originally passed in the early days of steel and armor manufacture when it was thought that the employment of officers by such concerns might have an influence on contracts entered into between their employers and the Government. The department believes that this view should no longer have any weight, since the number of firms entering into the manufacture of steel and other material used by the Government is so great that the interests of the Government are amply protected.

It is believed that it would be a distinct advantage to the country for retired officers skilled in technical matters pertaining to the Navy to be employed by private firms; the legal control which the Government has over these officers furnishes a guaranty which would prevent improper action on their part. This view is evidently held by foreign countries where such employment is permitted.

The law above cited is only operative against officers of the Navy and Marine Corps and does not exist for the Army or for any other branch of the Government.

ENLISTED PERSONNEL.

Reenlistments have been satisfactory, and the quality of men enlisted has been kept at a high standard, tending still to improve. The formation of the reserve fleets and commissioning of new ships of all classes have put heavy demands upon the personnel already short in numbers. Desertions and the kindred offense, absence over-leave, have been dealt with strictly, with the result of reducing their number somewhat.

AMENDMENT TO ENLISTMENT LAWS.

The recently enacted amendments to the enlistment laws for the Navy, permitting men to serve for unbroken terms of from five to eight years, is expected to result in greater efficiency and increased return from the appropriations affected, and especially to save considerably in the outlay on training. The full effect may not be looked for until the enlisted men have satisfied themselves as to the merits of the new features, but some data of value may be expected in next year's report.

ENLISTED MEN'S RECREATION ROOMS.

Attention is invited to the need for amusement and recreation facilities for enlisted men at navy yards and stations. At any of our large home yards there are not infrequently 2,000 men or possibly many more. No diversion or form of indoor amusement is offered them except those that can be drawn from the city with its temptations. If reading rooms and wholesome amusements in a suitable building, under proper supervision and regulations, were established, comfort and contentment would be much increased, the pay of the men would be saved to them, many forms of temptation would be withdrawn, all reacting for the betterment of social conditions and discipline.

MECHANICAL TRAINING.

Believing that the efficiency of the fleet is essentially dependent upon the skill and training of its personnel, the department has consistently endeavored during the past year to improve the mechanical ability of both officers and men.

The personnel of the Navy is made up of persons of various mechanical ratings and ability—machinists, boilermakers, coppersmiths, pipe fitters, carpenters, shipwrights, painters—men of similar trades and rating with the men doing like work in the various allied trades on shore.

The Navy maintains at certain shore stations post-graduate schools for both officers and men—the Engineering Experimental Class and Station at Annapolis, the Electricians' School at New York, the Seaman's Gunners' School at Washington, the Machinists' Mates' School at Charleston, the Ordnance classes at Newport, Washington, and Indianhead, and the graduates of these schools returning to active service upon the completion of their apprentice and post-graduate courses have rendered valuable and intelligent service in their various callings. The training of radio-telegraph operators has been extended, and a separate specialty made for these men which will result in much improvement in the naval radio service commensurate with its increasing use and importance.

It is self-evident that no man can attain to highest efficiency in his calling if he be not familiar with the tools and appurtenances that pertain thereto, and that an ability to rise equal to emergencies can be hoped for only when there exists a knowledge and ability to successfully perform the various duties of his station.

DETENTION SYSTEM OF PUNISHMENT FOR NAVAL OFFENSES.

While it has long been recognized in theory that the naval prisoner undergoing punishment for offenses against discipline is not a "criminal" in the sense in which that term is commonly understood, nevertheless, in fact, little distinction existed in the past between such naval prisoner and the criminal in civil life convicted of offenses which brand him as a menace to organized society. Both alike were subject to confinement at hard labor in penal institutions, where they were garbed and treated as "prisoners" and could not escape the ignominy which everywhere attaches to the name.

Appreciating the situation, the department appointed a board of officers to consider and recommend desirable reforms. The conclusions of this board, which were published in full in the Judge Advocate General's annual report for the fiscal year 1911, led to the inauguration of a "detention system" for offenders against discipline. The naval reservation at Port Royal, S. C., was selected as the site of the first "United States Naval Disciplinary Barracks." Regulations were adopted for the government of the barracks, which provide in brief that enlisted men confined therein shall continue to wear the service uniform and shall be known as "detentioners" instead of "prisoners;" that they shall be put through a carefully selected course in service drills and instruction so that at the end of their detention, if recommended as desirable, they may be returned to the service as proficient as possible; that after a detentioner has served two-thirds time with excellent conduct, or three-fourths time with good conduct, he shall be placed on probation at the disciplinary barracks for the remainder of the period of confinement to which he was sentenced, during which probationary period he shall be allowed liberty and given the same amount of work and responsibility as if restored to active duty in the service. Only such men are sent to the disciplinary barracks as have been convicted of purely military offenses and whose records indicate that they may become desirable members of the service; those convicted of offenses involving moral turpitude or violation of general laws, and those who have been guilty of repeated offenses against discipline, are sent to State or naval prisons.

In order that there might be as little as possible of the prison aspect at the disciplinary barracks, it has been the endeavor of the officers in charge to make the barracks in effect a correctional school and particularly to avoid the features of a naval prison. Nevertheless, it has never been the intention to make the disciplinary barracks attractive to enlisted men confined therein; but on the contrary, the rigid routine of drill and useful work, which is at all times maintained, is very exacting and calculated, when combined with deprivation of liberty, to render those who have once experienced such discipline reluctant to expose themselves by further misconduct to a second term of confinement in the disciplinary barracks.

The results to date may well be said to justify the action taken by the department in adopting the detention system in the Navy.

After observing for several months the operation of the disciplinary barracks at Port Royal, the department felt warranted in establishing similar barracks on the west coast, which was accordingly done at the navy yard, Puget Sound, June 1, 1912. The short time during which the last-named barracks have been in operation does not afford any statistics of definite value.

PENSIONS OF INMATES OF NAVAL HOMES.

The department renews its recommendation made last year that legislation be provided placing inmates of naval homes on the same footing as inmates of soldiers' homes in regard to their pensions. The law requires that the pensions of such inmates of naval homes be paid in for the benefit of the Navy pension fund. In the case of inmates of soldiers' homes such pensions are held intact for their benefit upon discharge, or, under certain circumstances prescribed by law, a portion may be paid to a deserted wife or a dependent child. The same law should apply to pensions of inmates of naval homes.

COMPENSATION OF DEPARTMENT EMPLOYEES.

The department renews its recommendation of last year in regard to the compensation of the civilian clerical and technical force of the Navy Department.

NAVAL MILITIA.

Naval militia organizations of a number of States volunteered for active service in the fleet during the naval review at New York in October. The following State militia organizations were represented and, as a rule, detailed to vessels of the reserve fleet:

State organization.	Officers.	Men.	Vessel to which assigned.
Chicago, Ill	23	141	Montana.
Baltimore, Md	6	16	Birmingham.
Cleveland, Ohio	6	33	Indiana.
Toledo, Ohio	5	31	Massachusetts.
Duluth, Minn	4	45	Wisconsin.
Detroit, Mich	12	111	Tennessee.
Hancock, Mich	8	55	Kearsarge.
Erie, Pa	4	30	Chester.
Philadelphia, Pa	3	39	Kentucky.
Ashland, Wis	4	23	Iowa.
District of Columbia	3	43	Maine.
	78	567	

The officers and men were regularly enlisted for four years, with special proviso that they were to be discharged by special order of the Secretary of the Navy upon completion of the review and return of the reserve fleet to the Philadelphia Navy Yard.

The Washington, Baltimore, and Chicago organizations joined the fleet at Philadelphia and remained on board until the reserve fleet's return to the Philadelphia yard; the other militia organizations joined the fleet at New York and returned to the League Island yard and received their discharges at that port.

In addition to the above organizations, the first, second, and third battalions of the New York State Militia took part in the review, and were detailed to ships of the active fleet at New York as below:

Organization.	Officers.	Men.	Vessel to which assigned.
First Battalion, New York City	2	21	Washington.
Second Battalion, Brooklyn, N. Y	10	100	Missouri.
Third Battalion (Buffalo, Rochester, and Dunkirk)	5	49	Utah.
	6	37	Florida.
	4	37	Washington.
	3	36	Delaware.
	30	280	

These officers and men were not regularly enlisted, their travel expenses and subsistence being paid by the State of New York.

The officers and men of the militia were assigned to duties on board according to their rank or rating in the militia, the watch officers taking regular watch duty with the officers of the service and the men of the militia with the enlisted personnel.

These men assisted materially in the movement of the reserve ships which were short handed to the extent of having only their reserve crews on board. The highest praise was given by commanding officers to the seaman-like conduct and bearing of the militiamen attached to the various vessels.

The department urges legislation in accordance with its recommendation to increase the strength and efficiency of the Naval Militia.

VESSELS FOR NAVAL MILITIA.

The practical experience gained by officers and enlisted men of the Naval Militia by the use of naval vessels loaned to the various States has been well demonstrated by the creditable showing of some of the organizations. Vessels of the size and type most useful for this purpose are also in constant demand for general cruising in the West Indies and Central America and on the Asiatic station, but the Navy does not possess enough of them to meet both needs. It is recommended that vessels suitable for the above work and for the Naval Militia be built and equipped at a reasonable cost, as such an expenditure would be many times repaid by the increased efficiency of this branch of the national reserve.

NAVAL RESERVE.

Experience has demonstrated that in time of war our naval force must be at least doubled. This means that we should have a reserve of about 50,000 men. There is a well equipped supply available, and means should be adopted to organize and train this supply. For this there must be authority of Congress for the enrollment of a National Naval Reserve, providing for yearly exercises, and making allowances for uniforms, equipment, drilling, rent, and other general expenses, and empowering the President to call the Naval Reserve into active service in time of war or threatened war.

Twenty-five thousand skilled men can be obtained from the honorably discharged men of the Navy, the Naval Militia, and various mechanical trades in civil life; the other 25,000 men are available among the merchant marine.

The information necessary for action by Congress is being obtained by an investigation which was begun early in October. The interest manifested in this preliminary investigation gives evidence that the reserve as contemplated will meet with the interest and approval of the men whose membership is desired.

The department recommends that legislation be enacted to permit the formation of a National Naval Reserve.

CONSOLIDATION OF THE NAVAL OBSERVATORY AND HYDROGRAPHIC OFFICE.

The department has had under consideration the plans for consolidating the activities of the Naval Observatory and Hydrographic Office. Both the Naval Observatory and the Hydrographic Office are employed in supplying the fleet with navigational equipment, both are concerned in the instruction of navigators; the Hydrographic Office controls the marine-surveying parties, yet the observatory provides and attends to the repair of instruments for them, instructs surveying officers in the use of astronomical instruments, and cooperates with them in the determination of longitudes. In numerous ways the two institutions have unity of interests and should harmonize and strengthen each other under one management.

ADDITIONAL LEGISLATION RECOMMENDED.

The department further recommends that legislation be enacted providing for: (1) Consolidation of naval examining and retiring boards; (2) administration of oaths by boards of inquest; (3) the administration of discipline in naval landing forces, authorizing division commanders to act upon records of summary courts-martial and to convene general courts-martial, authorizing commanding officers of naval stations outside the continental limits of the United States to convene courts of inquiry, and fixing the relation between the commanding officer of a naval transport and the commanding officer of a marine battalion embarked thereon; (4) naturalization of naval aliens; (5) change in the manner of appointing fleet staff officers; (6) the issuance of medals of honor to officers of the Navy and Marine Corps not now entitled to receive them; (7) acceptance by retired officers of appointments in the diplomatic or consular service; (8) graded retirement of enlisted men of the Navy and Marine Corps; (9) the repeal of sections 1538 and 1539, Revised Statutes, United States.

Respectfully submitted.

G. v. L. MEYER,
Secretary of the Navy.

APPENDIX.

Statement of sales of charts and Hydrographic Office publications and condemned property sold by the Navy Department during the fiscal year ended June 30, 1912.

Articles.	Sold to—	Gross amount received.	Expenses of sales.	Net proceeds.
Charts and Hydrographic Office publications.	....	$7,287.12	....	$7,287.12
Waste paper (168,099 pounds).............	F. C. Butt & Co.......	252.14	....	252.14
Typewriters (8)............................	Underwood Typewriter Co.	247.50	....	247.50
Old furniture and carpets, bureaus and offices, Navy Department.	....	555.13	....	555.18
Horses (2)..................................	....	200.00	$20.00	180.00
Total..................................	....	8,541.89	20.00	8,521.89

Deposited to credit:	
Miscellaneous receipts, proceeds of sales..	$1,284.77
Contingent and miscellaneous expenses, Hydrographic Office, 1912......................	7,287.12
Total..	8,521.89

The statement of sales of condemned naval vessels appears in the report of the Paymaster General, United States Navy.

The "Movements of Vessels" is printed as a separate pamphlet.

COMPARATIVE STATEMENT OF ESTIMATES AND APPROPRIATIONS, 1913-14, NAVY DEPARTMENT.

Naval Establishment.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Pay of the navy	$37,280,971.25	$39,264,662.00	$1,983,690.75		
Pay, miscellaneous	1,000,000.00	1,000,000.00			
Contingent, Navy	46,000.00	46,000.00			
Care of lepers, etc., Island of Guam	14,000.00	14,000.00			
Pay of enlisted men of U. S. S. Georgia	4,300.00			$4,300.00	
Bureau of Navigation:					
Transportation	800,000.00	850,000.00	50,000.00		
Recruiting	145,000.00	130,000.00		15,000.00	
Contingent	15,000.00	15,000.00			
Gunnery exercises	167,000.00	110,000.00		57,000.00	
Steaming exercises	15,000.00	6,500.00		8,500.00	
Experiments in aviation	10,000.00	10,000.00			
Outfits on first enlistment	900,000.00	882,070.00		17,930.00	
Maintenance of naval auxiliaries	768,373.00	850,000.00	81,627.00		
Naval training station, California	70,000.00	70,000.00			
Naval training station, Rhode Island	85,000.00	85,000.00			
Naval training station, Great Lakes	106,500.00	98,457.00		8,043.00	
Naval training station, St. Helena		25,000.00	25,000.00		$25,000.00
Naval War College, Rhode Island—					
Maintenance	23,750.00	25,250.00	1,500.00		
Repairs to building and improvement in electric-light system	3,000.00			3,000.00	
Services of a lecturer on international law	1,500.00	2,000.00	500.00		
Services of civilian lecturers	300.00	300.00			
Care and preservation of the library, including the purchase, binding, and repair of books of reference and periodicals	1,300.00	1,300.00			
Total	3,111,723.00	3,160,877.00	158,627.00	109,473.00	25,000.00
Naval Home, Philadelphia, Pa. (paid from interest on Navy pension fund)—					
Pay of employees	19,048.00	22,288.00	3,240.00		
Maintenance	54,421.00	59,921.00	5,500.00		
Total	73,469.00	82,209.00	8,740.00		
Bureau of Ordnance:					
Ordnance and ordnance stores—					
Procuring, producing, preserving, and handling ordnance material, etc	5,400,000.00	5,800,000.00	400,000.00		
Purchase and manufacture of smokeless powder	1,150,000.00	1,150,000.00			

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

Naval Establishment.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Bureau of Ordnance—Continued.					
Naval Gun Factory, Washington, D. C.—					
New and improved machinery for existing shops	$125,000.00	$125,000.00			
Machinery, cupolas, furnaces, and foundry equipment for new foundry	100,000.00			$100,000.00	
New batteries for ships in the Navy—					
New sights for 5-inch, 6-inch, and 7-inch guns and modifying their mounts	100,000.00			100,000.00	
Modifying or renewing breech mechanisms of 3-inch, 4-inch, 5-inch, and 6-inch guns	125,000.00	75,000.00		50,000.00	
Replacing Mark VI 6-inch guns with Mark VIII guns and repairing and modernizing the Mark VI guns for issue	100,000.00	150,000.00	$50,000.00		
Lining and hooping to the muzzle 8-inch 40-caliber Mark V guns	60,000.00	40,000.00		20,000.00	
Liners for eroded guns	125,000.00	125,000.00			
Modifying 5-inch 50-caliber Mark V guns	75,000.00	75,000.00			
Ammunition for ships of the Navy	3,850,000.00	3,850,000.00			
Modernizing turrets of ships of the Navy	250,000.00			250,000.00	
Small arms and machine guns	203,000.00			203,000.00	
Torpedoes and appliances	650,000.00	850,000.00	200,000.00		
Modernizing projectiles	300,000.00	150,000.00		150,000.00	
Mines and mine appliances		100,000.00	100,000.00		$100,000.00
Torpedo station, Newport, R. I.—					
Maintenance	80,000.00	80,000.00			
New machinery and tools for torpedo factory	50,000.00	15,000.00		35,000.00	
Experiments	100,000.00	200,000.00	100,000.00		
Arming and equipping naval militia	125,000.00	125,000.00			
Repairs, Bureau of Ordnance	30,000.00	30,000.00			
Contingent, Bureau of Ordnance	9,500.00	9,500.00			
Total	13,007,500.00	12,949,500.00	850,000.00	908,000.00	100,000.00
Bureau of Equipment:					
Equipment of vessels	3,843,300.00	5,210,000.00	1,366,700.00		
Battle compasses	120,000.00	120,000.00			
Coal and transportation	4,000,000.00	5,000,000.00	1,000,000.00		
Depots for coal and other fuel	500,000.00	500,000.00			
Contingent, Bureau of Equipment	10,000.00	10,000.00			
Ocean and lake surveys	75,000.00	90,000.00	15,000.00		
High-power radio shore stations	400,000.00	400,000.00			
Total	8,948,300.00	11,330,000.00	2,381,700.00		

Bureau of Yards and Docks:					
Maintenance, Bureau of Yards and Docks	1,500,000.00	1,600,000.00	100,000.00		
Contingent, Bureau of Yards and Docks	30,000.00	30,000.00			
Total	1,530,000.00	1,630,000.00	100,000.00		
Public works, Bureau of Yards and Docks:					
Navy yard, Portsmouth, N. H.—					
Crane track and railroad extension	20,000.00			20,000.00	
Tool house for naval prison	2,000.00			2,000.00	
Quarters for commanding officer, naval prison	12,000.00			12,000.00	
Improvement and additions to power plant	10,000.00			10,000.00	
Fitting up room for storage of cranes		9,000.00	9,000.00		9,000.00
Garbage crematory		6,000.00	6,000.00		6,000.00
Central administration building, rebuilding building No. 86 (to be immediately available)		20,000.00	20,000.00		20,000.00
Roadway to hospital		7,000.00	7,000.00		7,000.00
Total	44,000.00	42,000.00	42,000.00	44,000.00	42,000.00
Navy yard, Boston, Mass.—					
Toward 150-ton floating crane (cost not to exceed $325,000)	150,000.00			150,000.00	
Paving	10,000.00	15,000.00	5,000.00		
Electrical system, extension	5,000.00	5,000.00			
Reconstruction building No. 24	65,000.00			65,000.00	
Railroad system, extension and equipment	10,000.00	10,000.00			
Fireproofing of pattern shop		22,000.00	22,000.00		22,000.00
Remodeling building No. 40		12,000.00	12,000.00		12,000.00
Remodeling building No. 77 for boat storage		15,000.00	15,000.00		15,000.00
Improvement of coaling plant		65,000.00	65,000.00		65,000.00
Power plant improvements		3,900.00	3,900.00		3,900.00
Dredging, to continue		10,000.00	10,000.00		10,000.00
Sewers and drains		3,600.00	3,600.00		3,600.00
Enlargement, buildings Nos. 42 and 43		75,000.00	75,000.00		75,000.00
Additional oil storage		5,000.00	5,000.00		5,000.00
Extension to yard dispensary		2,800.00	2,800.00		2,800.00
Air compressor, power plant		35,000.00	35,000.00		35,000.00
Total	240,000.00	279,300.00	254,300.00	215,000.00	249,300.00
Navy yard, New York, N. Y.—					
One 50-ton locomotive crane	50,000.00			50,000.00	
Paving and grading, to continue	15,000.00	25,000.00	10,000.00		
Yard railroad, extension and equipment	10,000.00	40,000.00	30,000.00		
Dredging, to continue	50,000.00	100,000.00	50,000.00		
Raising freeboard of floating crane Hercules		30,000.00	30,000.00		30,000.00
Centralizing offices (to be immediately available)		55,000.00	55,000.00		55,000.00
Improvement of water front, to continue		125,000.00	125,000.00		125,000.00
Total	125,000.00	375,000.00	300,000.00	50,000.00	210,000.00

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

Naval Establishment.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Public works, Bureau of Yards and Docks—Continued.					
Navy yard, Philadelphia, Pa.—					
Sanitation system, reserve basin, to complete	$45,000.00			$45,000.00	
Pier No. 5, to extend	75,000.00			75,000.00	
Water-closets and laundry	10,000.00			10,000.00	
150-ton crane, to cost $350,000		$100,000.00	$100,000.00		$100,000.00
Complete rebuilding building No. 7 for central office (immediately available)		50,000.00	50,000.00		50,000.00
Electric system, extensions		15,000.00	15,000.00		15,000.00
Sea-wall protection		12,000.00	12,000.00		12,000.00
Water systems, extensions		15,000.00	15,000.00		15,000.00
Sewer system, extensions		5,000.00	5,000.00		5,000.00
Gasoline storage plant		10,000.00	10,000.00		10,000.00
Paving, to continue		10,000.00	10,000.00		10,000.00
Railroad system, extensions and equipment		5,000.00	5,000.00		5,000.00
Dredging plant, to build		40,000.00	40,000.00		40,000.00
Quay wall and piers		50,000.00	50,000.00		50,000.00
Dredging, to continue		50,000.00	50,000.00		50,000.00
Runway for crane, building No. 10		10,000.00	10,000.00		10,000.00
Pattern storage building		50,000.00	50,000.00		50,000.00
Total	130,000.00	422,000.00	422,000.00	130,000.00	422,000.00
Navy yard, Washington, D. C.—					
New foundry (cost not to exceed $200,000), to complete	100,000.00			100,000.00	
Water-front improvements, to complete	50,000.00	35,000.00		15,000.00	
Renewal of floors in gun shops and other buildings	25,000.00			25,000.00	
Electric plant, extensions	21,000.00			21,000.00	
Storage for power vehicles	4,000.00			4,000.00	
Fireproof general storehouse (to cost $225,000)		150,000.00	150,000.00		150,000.00
Paving, to continue		2,500.00	2,500.00		2,500.00
Sewerage, to extend		5,000.00	5,000.00		5,000.00
Railroad, extension		2,500.00	2,500.00		2,500.00
Heavy gun scales		8,000.00	8,000.00		8,000.00
Total	200,000.00	203,000.00	168,000.00	165,000.00	168,000.00

Navy yard, Norfolk, Va.—					
Railroad tracks, extensions and equipment	5,000.00	10,000.00	5,000.00		
Electric plant, extensions	20,000.00			20,000.00	
Repairs, buildings St. Helena	25,000.00	25,000.00			
Improvements to water front, to continue	50,000.00	50,000.00			
Paving and grading, to continue	10,000.00	15,000.00	5,000.00		
Heating system, extension	15,000.00	5,000.00		10,000.00	
Water-closets and lavatories for ships in dock	15,000.00			15,000.00	
Incinerator, St. Helena	5,000.00			5,000.00	
150-ton crane (limit of cost of $350,000)		150,000.00	150,000.00		150,000.00
Yard wall, extension		12,000.00	12,000.00		12,000.00
Remodeling buildings 28 and 29 for boat shop and shed		30,000.00	30,000.00		30,000.00
Dredging, to continue		40,000.00	40,000.00		40,000.00
Remodeling building No. 36		20,000.00	20,000.00		20,000.00
Water system, extensions		7,500.00	7,500.00		7,500.00
Sewer system, extension		5,000.00	5,000.00		5,000.00
Lavatories and toilet facilities		5,000.00	5,000.00		5,000.00
Compressed-air system, extensions		5,000.00	5,000.00		5,000.00
Telephone system, extensions		5,000.00	5,000.00		5,000.00
Record vault, administration building		5,000.00	5,000.00		5,000.00
Total	145,000.00	389,500.00	294,500.00	50,000.00	284,500.00
Navy yard, Charleston, S. C.—					
Paving and grading, to continue	5,000.00	5,000.00			
Railroad system extensions and improvements	5,000.00			5,000.00	
Conduit system extensions	5,000.00			5,000.00	
Bathroom and lavatories for enlisted men	4,000.00			4,000.00	
Storehouse for oil	20,000.00			20,000.00	
Two sets officers' quarters		18,000.00	18,000.00		18,000.00
Locomotive and crane shed		5,000.00	5,000.00		5,000.00
Remodeling dispensary, building No. 19		3,000.00	3,000.00		3,000.00
Lumber and boat shed		8,000.00	8,000.00		8,000.00
Torpedo slips, to cost $300,000		150,000.00	150,000.00		150,000.00
Total	39,000.00	189,000.00	184,000.00	34,000.00	184,000.00
Naval station, Key West, Fla.—					
Power plant	25,000.00			25,000.00	
Grading and paving	5,000.00			5,000.00	
Paving and grading on Whitehead, Front, and Green Streets where abutting on naval station	5,500.00			5,500.00	
Toward construction of breakwater, limit of contract $600,000		100,000.00	100,000.00		100,000.00
Total	35,500.00	100,000.00	100,000.00	35,500.00	100,000.00

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

Naval Establishment.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Public works, Bureau of Yards and Docks—Continued.					
Navy yard, Mare Island, Cal.—					
Grading and paving	$15,000.00	$10,000.00		$5,000.00	
Railway-system extensions	10,000.00	5,000.00		5,000.00	
Repairs to buildings Nos. 106 and 118	45,000.00			45,000.00	
Sewer-system extensions	10,000.00			10,000.00	
Salt-water flushing and fire-protection system		25,000.00	$25,000.00		$25,000.00
Reconstructing quay wall		20,000.00	20,000.00		20,000.00
Modernizing electric power and light distributing systems		20,000.00	20,000.00		20,000.00
Water-system extensions, to continue		10,000.00	10,000.00		10,000.00
Total	80,000.00	90,000.00	75,000.00	65,000.00	75,000.00
Navy yard, Puget Sound, Wash.—					
Railroad extension	10,000.00			10,000.00	
Pier No. 4	175,000.00			175,000.00	
New foundry equipment	20,000.00			20,000.00	
Electric crane	4,000.00			4,000.00	
Two officers' quarters	18,000.00			18,000.00	
Main gate and gatehouse		35,000.00	35,000.00		35,000.00
Shipfitters' shop, mold loft, and structural steel storage, to cost $275,000		120,000.00	120,000.00		120,000.00
Power-plant extensions		75,000.00	75,000.00		75,000.00
Pier No. 8, to extend		10,000.00	10,000.00		10,000.00
Paving and walks		15,000.00	15,000.00		15,000.00
Linseed-oil storage tanks		4,000.00	4,000.00		4,000.00
Sewer-system extensions		35,000.00	35,000.00		35,000.00
Telephone system extensions and renewals		10,000.00	10,000.00		10,000.00
Heating system extensions and renewals		10,000.00	10,000.00		10,000.00
Berthing space for Pacific Reserve Fleet		75,000.00	75,000.00		75,000.00
Rebuilding pier No. 1		10,000.00	10,000.00		10,000.00
Total	227,000.00	399,000.00	399,000.00	227,000.00	399,000.00
Naval Station, Guantanamo, Cuba—					
Recreation building for enlisted men		30,000.00	30,000.00		30,000.00

Naval Station, Olongapo, P. I.—					
Steel pontoons for approach to Dewey		30,000.00	30,000.00		30,000.00
Naval Station, Pearl Harbor, Hawaii—					
Dry dock, to continue	1,050,000.00			1,050,000.00	
Water-front development	100,000.00	100,000.00			
Street paving	25,000.00			25,000.00	
Water system	17,000.00	30,000.00	13,000.00		
Power distribution, mains and conduits	75,000.00	65,000.00		10,000.00	
Metal and lumber storehouse	25,000.00			25,000.00	
Paint and rigging loft	25,000.00			25,000.00	
Pattern shop	60,000.00			60,000.00	
Storehouses	100,000.00			100,000.00	
Latrines	10,000.00			10,000.00	
Railroad equipment	45,000.00	30,000.00		15,000.00	
Floating crane, to complete	210,000.00			210,000.00	
Boat landings, etc		5,000.00	5,000.00		5,000.00
Two officers' quarters		24,000.00	24,000.00		24,000.00
Torpedo-boat slips		50,000.00	50,000.00		50,000.00
Ice plant and miscellaneous improvements		50,000.00	50,000.00		50,000.00
One dry-dock crane		100,000.00	100,000.00		100,000.00
Marine railway		100,000.00	100,000.00		100,000.00
Total	1,742,000.00	554,000.00	342,000.00	1,530,000.00	329,000.00
Buildings and grounds, Naval Academy—					
For removing overhead wires and providing underground conduits	60,000.00			60,000.00	
Reenforced concrete bridge across Dorsey Creek (to cost $50,000)	25,000.00			25,000.00	
For purchase of land for dairy, and transfer to new site		100,000.00	100,000.00		100,000.00
Sea wall, complete around power house		50,000.00	50,000.00		50,000.00
Wharf and approach (to cost $125,000)		50,000.00	50,000.00		50,000.00
Total	85,000.00	200,000.00	200,000.00	85,000.00	200,000.00
Naval Training Station, Rhode Island: Buildings—					
Repairs to Barracks B and C	10,000.00			10,000.00	
Underground conduit and lighting system, to extend	5,000.00			5,000.00	
Repairs to Barracks A, B, and C		6,000.00	6,000.00		6,000.00
Power plant and distributing systems, extension		10,000.00	10,000.00		10,000.00
Improvements to water front to continue, and ferry slip		10,000.00	10,000.00		10,000.00
Total	15,000.00	26,000.00	26,000.00	15,000.00	26,000.00
Naval Training Station, California, buildings—					
Buildings in connection with dispensary	1,500.00			1,500.00	
Water pipe		10,000.00	10,000.00		10,000.00
Total	1,500.00	10,000.00	10,000.00	1,500.00	10,000.00

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

Naval Establishment.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Public works, Bureau of Yards and Docks—Continued.					
Naval Observatory—					
For cleaning, repair, and upkeep of grounds and roads	$5,000.00	$16,000.00	$11,000.00		
Naval Proving Ground, Indian Head, Md.—					
Repairs to wharf and coal-handling plant at powder factory	10,000.00			$10,000.00	
New surveillance magazine	1,500.00			1,500.00	
2 dry houses for smokeless powder	7,500.00			7,500.00	
Purchase of 5 acres (more or less) of additional land	200.00			200.00	
One set of double quarters for commissioned officers	12,000.00			12,000.00	
Addition to facilities		29,000.00	29,000.00		$29,000.00
Storehouse for nitrate of soda		15,000.00	15,000.00		15,000.00
Purchase of additional land		200,000.00	200,000.00		200,000.00
Total	31,200.00	244,000.00	244,000.00	31,200.00	244,000.00
Naval magazine, Fort Mifflin, Pa.—					
Surveillance test house	2,000.00			2,000.00	
Magazine for explosive "D"	2,500.00			2,500.00	
Magazine for internal detonating fuses	600.00			600.00	
Magazine for segregated smokeless powder	3,000.00			3,000.00	
Tanks to hold rain water	2,000.00			2,000.00	
Filling house for explosive "D"	1,000.00			1,000.00	
Total	11,100.00			11,100.00	
Naval magazine, New York Harbor (Iona Island)—					
2 magazine buildings, including clearing, preparing grades of sites, railroad tracks	30,000.00			30,000.00	
Extension of shipping house and replanking dock	10,000.00			10,000.00	
Lunch room and lockers		2,000.00	2,000.00		2,000.00
Blacksmith shop		2,500.00	2,500.00		2,500.00
Quarters for gunner		6,000.00	6,000.00		6,000.00
Total	40,000.00	10,500.00	10,500.00	40,000.00	10,500.00
Naval magazine, Lake Denmark, N. J.—					
1 locomotive house	2,500.00			2,500.00	
1 magazine building, including clearing, preparing, grading of site, railroad tracks	15,000.00			15,000.00	
Water-pipe mains	4,000.00			4,000.00	

Fire and boundary wall, to continue	5,000.00	2,500.00		2,500.00	
Pump house		1,000.00	1,000.00		1,000.00
Total	26,500.00	3,500.00	1,000.00	24,000.00	1,000.00
Naval magazine, St. Juliens Creek, Va.—					
Two magazine buildings	30,000.00			30,000.00	
Magazine building for storage of high explosives	1,500.00			1,500.00	
Two sets of quarters for magazine attendants	7,000.00			7,000.00	
Wharf and approaches		40,000.00	40,000.00		40,000.00
Extending buildings 17 and 18		12,000.00	12,000.00		12,000.00
Fire-protection system, extensions		2,500.00	2,500.00		2,500 00
Railroad system extensions		4,000.00	4,000.00		4,000.00
Shed for repairing damaged powder tanks		2,000.00	2,000.00		2,000.00
Total	38,500.00	60,500.00	60,500.00	38,500.00	60,500.00
Naval magazine, Mare Island, Cal.—					
One magazine building	20,000.00			20,000.00	
Primer house	1,500.00			1,500.00	
Gunners' quarters	5,000.00			5,000.00	
One magazine building		15,000.00	15,000.00		15,000.00
Two filling houses		2,400.00	2,400.00		2,400.00
Extension of sea wall		2,500.00	2,500.00		2,500.00
Total	26,500.00	19,900.00	19,900.00	26,500.00	19,900.00
Naval magazine, navy yard, Puget Sound, Wash.—					
Extension of fire-protection system	1,000.00			1,000.00	
Quarters for inspector of ordnance	9,000.00			9,000.00	
Extension of railroad system	3,000.00			3,000.00	
One building for storehouse and cartridge-bag factory		15,000.00	15,000.00		15,000.00
Clearing and grading grounds		3,000.00	3,000.00		3,000.00
Quay wall		15,000.00	15,000.00		15,000.00
One filling house		1,500.00	1,500.00		1,500.00
One set of quarters for gunner		6,000.00	6,000.00		6,000.00
One magazine building		15,000.00	15,000.00		15,000.00
Total	13,000.00	55,500.00	55,500.00	13,000.00	55,500.00
Naval magazine, Hingham, Mass.—					
Improvement of channel	40,000.00			40,000.00	
One general magazine	13,000.00			13,000.00	
One magazine, high explosives, with railroad approach		12,000.00	12,000.00		12,000.00
Magazine for smokeless powder with railroad approach and extended fire main		16,555.00	16,555.00		16,555.00
Railroad track to filling house		1,890.00	1,890.00		1,890.00
One detonator house		1,250.00	1,250.00		1,250.00
One gun-cotton house		1,250.00	1,250.00		1,250.00
One filling house		1,500.00	1,500.00		1,500.00
Total	53,000.00	34,445.00	34,445.00	53,000.00	34,445.00

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

Naval Establishment.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Public works, Bureau of Yards and Docks—Continued.					
Naval magazine, Kuahua, Hawaii—					
Dock	$25,000.00			$25,000.00	
Primer house	5,000.00			5,000.00	
One magazine	25,000.00			25,000.00	
Loaded-shell house	30,000.00			30,000.00	
Fixed-ammunition house	25,000.00			25,000.00	
High-explosive house	5,000.00			5,000.00	
Railroad tracks and scales	10,000.00	$15,000.00	$5,000.00		
Electric-power installation	5,500.00			5,500.00	
One gunner's quarters	7,000.00			7,000.00	
Fresh-water system	10,000.00			10,000.00	
Machinery and tools	5,000.00	20,000.00	15,000.00		
Two magazines		50,000.00	50,000.00		$50,000.00
One gunner's quarters		7,000.00	7,000.00		7,000.00
One shipping house		60,000.00	60,000.00		60,000.00
Building for torpedoes and mines		50,000.00	50,000.00		50,000.00
Two filling houses		16,000.00	16,000.00		16,000.00
One segregation house		10,000.00	10,000.00		10,000.00
One bombproof		1,500.00	1,500.00		1,500.00
One unfusing roof		500.00	500.00		500.00
Building for marine guard		2,500.00	2,500.00		2,500.00
Compressed-air locomotive plant		18,000.00	18,000.00		18,000.00
Total	152,500.00	250,500.00	235,500.00	137,500.00	215,500.00
Naval magazine, Fort Lafayette, N. Y.—					
Extension of wharf		6,000.00	6,000.00		6,000.00
Auxiliary pump house for fire protection		1,000.00	1,000.00		1,000.00
Dredging channel		15.000.00	15,000.00		15,000.00
Total		22,000.00	22,000.00		22,000.00
Naval magazine, Olongapo, P. I.—					
Two sets of quarters, chemist and subinspector		6,000.00	6,000.00		6,000.00
Extension magazine		1,300.00	1,300.00		1,300.00

Filling house		4,000.00	4,000.00		4,000.00
Renewal of dock		4,000.00	4,000.00		4,000.00
Total		15,300.00	15,300.00		15,300.00
Naval Torpedo Station, Newport, R. I.—					
New power house, toward building (cost not to exceed $60,000) and equipping (cost not to exceed $120,000), to complete	120,000.00			120,000.00	
Paving	5,000.00			5,000.00	
Extension of fresh-water, steam heating, and conduit systems	10,000.00			10,000.00	
Repairs to old machine shop		8,000.00	8,000.00		8,000.00
Seamen gunners' quarters		60,000.00	60,000.00		60,000.00
Railroad, Rose Island		20,000.00	20,000.00		20,000.00
Improvement water front		10,000.00	10,000.00		10,000.00
Total	135,000.00	98,000.00	98,000.00	135,000.00	98,000.00
Government landing, Narragansett Bay, R. I.—					
Water-front improvements		2,000.00	2,000.00		2,000.00
Naval coal depot, Melville Station, R. I.—					
Extension of wharf		10,000.00	10,000.00		10,000.00
Sea wall		10,000.00	10,000.00		10,000.00
Quarters for machinist		5,000.00	5,000.00		5,000.00
Paint and oil house		1,000.00	1,000.00		1,000.00
Total		26,000.00	26,000.00		26,000.00
Engineering experiment station, Annapolis, Md.—					
Concrete sea wall and pavements		65,000.00	65,000.00		65,000.00
Marine barracks, Boston, Mass.—					
Barracks		100,000.00	100,000.00		100,000.00
Officers' quarters		48,000.00	48,000.00		48,000.00
Total		148,000.00	148,000.00		148,000.00
Marine Barracks, Philadelphia, Pa.—					
One additional fireproof barracks	175,000.00			175,000.00	
One set double quarters for officers, including foundation piling		20,000.00	20,000.00		20,000.00
One set quarters for eight bachelor officers		35,000.00	35,000.00		35,000.00
Central heating plant for Marine Corps establishment		35,000.00	35,000.00		35,000.00
Roads, walks, sewers, and distributing systems, extensions		15,000.00	15,000.00		15,000.00
Total	175,000.00	105,000.00	105,000.00	175,000.00	105,000.00
Marine Barracks, Mare Island, Cal.—					
One fireproof barracks		200,000.00	200,000.00		200,000.00
Officers' quarters		75,000.00	75,000.00		75,000.00
Total		275,000.00	275,000.00		275,000.00

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

Naval Establishment.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Public works, Bureau of Yards and Docks—Continued.					
Marine Barracks, Puget Sound, Wash.—					
For the purchase of land for rifle range	$7,000.00			$7,000.00	
Improvements of disciplinary barracks		$6,000.00	$3,000.00		$6,000.00
Shooting gallery		2,500.00	2,500.00		2,500.00
One set quarters for eight bachelor officers		35,000.00	35,000.00		35,000.00
Total	7,000.00	43,500.00	43,500.00	7,000.00	43,500.00
Marine Barracks, Pearl Harbor, Hawaii—					
One set double quarters for officers		18,000.00	18,000.00		18,000.00
One set quarters for eight bachelor officers		35,000.00	35,000.00		35,000.00
Administration building		20,000.00	20,000.00		20,000.00
Quartermaster's storehouse		25,000.00	25,000.00		25,000.00
Post exchange, gymnasium, etc		20,000.00	20,000.00		20,000.00
Total		118,000.00	118,000.00		118,000.00
Marine Barracks, Isthmus of Panama—					
Erection of barracks, quarters, and other buildings for accommodation of marines		400,000.00	400,000.00		400,000.00
Depot of supplies, Philadelphia, Pa.—					
Additional building, including purchase of site		175,000.00	175,000.00		175,000.00
For repairs and preservation at navy yards and stations	800,000.00	1,000,000.00	200,000.00		
Recapitulation—					
Navy yard, Portsmouth, N. H	44,000.00	42,000.00	42,000.00	44,000.00	42,000.00
Navy yard, Boston, Mass	240,000.00	279,300.00	254,300.00	215,000.00	249,300.00
Navy yard, New York, N. Y	125,000.00	375,000.00	300,000.00	50,000.00	210,000.00
Navy yard, Philadelphia, Pa	130,000.00	422,000.00	422,000.00	130,000.00	422,000.00
Navy yard, Washington, D. C	200,000.00	203,000.00	168,000.00	165,000.00	168,000.00
Navy yard, Norfolk, Va	145,000.00	389,500.00	294,500.00	50,000.00	284,500.00
Navy yard, Charleston, S. C	39,000.00	189,000.00	184,000.00	34,000.00	184,000.00
Naval station, Key West, Fla	35,500.00	100,000.00	100,000.00	35,500.00	100,000.00

Navy yard, Mare Island, Cal	80,000.00	90,000.00	75,000.00	65,000.00	75,000.00
Navy yard, Puget Sound, Wash	227,000.00	399,000.00	399,000.00	227,000.00	399,000.00
Naval station, Guantanamo, Cuba		30,000.00	30,000.00		30,000.00
Naval station, Olongapo, P. I		30,000.00	30,000.00		30,000.00
Naval station, Pearl Harbor, Hawaii	1,742,000.00	554,000.00	342,000.00	1,530,000.00	329,000.00
Buildings and grounds, Naval Academy	85,000.00	200,000.00	200,000.00	85,000.00	200,000.00
Naval Training Station, Rhode Island, buildings	15,000.00	26,000.00	26,000.00	15,000.00	26,000.00
Naval Training Station, California, buildings	1,500.00	10,000.00	10,000.00	1,500.00	10,000.00
Naval Observatory	5,000.00	16,000.00	11,000.00		
Naval Proving Ground, Indian Head, Md	31,200.00	244,000.00	244,000.00	31,200.00	244,000.00
Naval magazine, Fort Mifflin, Pa	11,100.00			11,100.00	
Naval magazine, New York Harbor (Iona Island)	40,000.00	10,500.00	10,500.00	40,000.00	10,500.00
Naval magazine, Lake Denmark, N. J	26,500.00	3,500.00	1,000.00	24,000.00	1,000.00
Naval magazine, St. Juliens Creek, Va	38,500.00	60,500.00	60,500.00	38,500.00	60,500.00
Naval magazine, Mare Island, Cal	26,500.00	19,900.00	19,900.00	26,500.00	19,900.00
Naval magazine, navy yard, Puget Sound, Wash	13,000.00	55,500.00	55,500.00	13,000.00	55,500.00
Naval magazine, Hingham, Mass	53,000.00	34,445.00	34,445.00	53,000.00	34,445.00
Naval magazine, Kuahua, Hawaii	152,500.00	250,500.00	235,500.00	137,500.00	215,500.00
Naval magazine, Fort Lafayette, N. Y		22,000.00	22,000.00		22,000.00
Naval magazine, Olongapo, P. I		15,300.00	15,300.00		15,300.00
Naval Torpedo Station, Newport, R. I	135,000.00	98,000.00	98,000.00	135,000.00	98,000.00
Government landing, Narragansett Bay, R. I		2,000.00	2,000.00		2,000.00
Naval coal depot, Melville Station, R. I		26,000.00	26,000.00		26,000.00
Engineering experiment station, Annapolis, Md		65,000.00	65,000.00		65,000.00
Marine barracks, Boston, Mass		148,000.00	148,000.00		148,000.00
Marine barracks, Philadelphia, Pa	175,000.00	105,000.00	105,000.00	175,000.00	105,000.00
Marine barracks, Mare Island, Cal		275,000.00	275,000.00		275,000.00
Marine barracks, Puget Sound, Wash	7,000.00	43,500.00	43,500.00	7,000.00	43,500.00
Marine barracks, Pearl Harbor, Hawaii		118,000.00	118,000.00		118,000.00
Marine barracks, Isthmus of Panama		400,000.00	400,000.00		400,000.00
Depot of supplies, Philadelphia, Pa		175,000.00	175,000.00		175,000.00
Repairs and preservation at navy yards and stations	800,000.00	1,000,000.00	200,000.00		
Total public works, navy yards, and stations	4,623,300.00	6,526,445.00	5,241,945.00	3,338,800.00	4,892,945.00
Bureau of Medicine and Surgery:					
Medical Department	430,000.00	510,000.00	80,000.00		
Contingent, Bureau of Medicine and Surgery	97,000.00	142,000.00	45,000.00		
Transportation of remains	15,000.00	17,000.00	2,000.00		
Total	542,000.00	669,000.00	127,000.00		
Bureau of Supplies and Accounts:					
Provisions, Navy	8,542,328.25	8,863,441.75	321,113.50		
Contingent, Bureau of Supplies and Accounts	200,000.00	205,000.00	5,000.00		
Freight, Bureau of Supplies and Accounts	450,000.00	450,000.00			
Total	9,192,328.25	9,518,441.75	326,113.50		

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

Naval Establishment.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Bureau of Construction and Repair:					
Construction and repair of vessels	$8,479,144.00	$8,479,144.00			
Construction and repair of vessels—wrecking pontons		600,000.00	$600,000.00		$600,000.00
Improvement of construction plant—					
Navy yard, Portsmouth, N. H		10,000.00	10,000.00		10,000.00
Navy yard, Boston, Mass		20,000.00	20,000.00		20,000.00
Navy yard, New York, N. Y		20,000.00	20,000.00		20,000.00
Navy yard, Philadelphia, Pa		15,000.00	15,000.00		15,000.00
Navy yard, Norfolk, Va		15,000.00	15,000.00		15,000.00
Navy yard, Charleston, S. C		10,000.00	10,000.00		10,000.00
Navy yard, Mare Island, Cal		15,000.00	15,000.00		15,000.00
Navy yard, Puget Sound, Wash		10,000.00	10,000.00		10,000.00
Naval station, Pearl Harbor, Hawaii	200,000.00			$200,000.00	
Total	8,679,144.00	9,194,144.00	715,000.00	200,000.00	715,000.00
Bureau of Steam Engineering:					
Steam machinery	6,256,000.00	6,256,000.00			
Engineering experiment station, United States Naval Academy, Annapolis, Md.—					
Experimental and research work	40,000.00	60,000.00	20,000.00		
Equipment of building		26,000.00	26,000.00		26,000.00
Machinery plant, naval station, Pearl Harbor, Hawaii	300,000.00			300,000.00	
Total	6,596,000.00	6,342,000.00	46,000.00	300,000.00	26,000.00
United States Naval Academy:					
Pay, Naval Academy	190,504.00	180,124.00			
4 instructors, at $1,800 each (in lieu of 10 instructors, at $1,800 each)				10,800.00	
3 clerks, at $1,500 each (increase of 1 submitted)			1,500.00		1,500.00
3 clerks, at $840 each (increase of 1 submitted)			840.00		840.00
1 draftsman, at $1,500 (increase of $300 submitted)			300.00		
1 surveyor, at $1,500 (increase of $300 submitted)			300.00		
1 dentist, at $2,520 (omitted)				2,520.00	
Current and miscellaneous expenses, Naval Academy	46,000.00	46,000.00			
Maintenance, Naval Academy	219,116.00	229,116.00	10,000.00		
Repairs, Naval Academy	125,000.00	140,000.00	15,000.00		
Total	580,620.00	595,240.00	27,940.00	13,320.00	2,340.00

United States Marine Corps:					
Pay, Marine Corps—					
Pay, officers, active list	936,278.00	1,014,058.00	77,780.00		
Pay, officers, retired list	177,552.50	181,677.50	4,125.00		
Pay, noncommissioned officers, musicians, privates, active list	2,866,362.00	3,165,936.00	299,574.00		
Pay, enlisted men, retired list	137,718.00	150,759.00	13,041.00		
Undrawn clothing	150,000.00	125,475.00		24,525.00	
Mileage	55,000.00	58,500.00	3,500.00		
Commutation for quarters	33,500.00	44,500.00	11,000.00		
Pay, civil force—					
Office of the Major General Commandant	4,371.28	4,471.28	100.00		
Paymaster's Department	4,700.00	4,700.00			
Adjutant and Inspector's Department	4,700.00	7,600.00	2,900.00		2,900.00
Quartermaster's Department	16,940.00	23,165.00	6,225.00		4,375.00
Total	4,387,121.78	4,780,841.78	418,245.00	24,525.00	7,275.00
Quartermaster's Department. Marine Corps—					
Provisions	825,000.00	923,000.00	98,000.00		
Clothing	741,920.00	737,000.00		4,920.00	
Fuel	164,000.00	169,000.00	5,000.00		
Military stores	307,737.00	332,737.00	25,000 00		
Transportation and recruiting	317,000.00	352,000.00	35,000.00		
Repairs of barracks	120,000.00	160,000.00	40,000.00		
Forage	24,200.00	26,200.00	2,000.00		
Commutation of quarters	79,000.00	86,000.00	7,000.00		
Contingent	460,000.00	490,000.00	30,000.00		
Total	3,038,857.00	3,275,937.00	242,000.00	4,920.00	
Increase of the Navy (exclusive of first year of new building program):					
Construction and machinery	4,808,705.00	13,550,728.00	8,742,023.00		
Torpedo boats	921,647.00	2,058,363.00	1,136,716.00		
Colliers	581,321.48			581,321.48	
Armor and armament	5,000,000.00	6,500,000.00	1,500,000.00		
Equipment	100,000.00	175,000.00	75,000.00		
Total	11,411,673.48	22,284,091.00	11,453,739.00 581,321.48	581,321.48	
Net increase			10,872,417.52		
Increase of the Navy (first year of proposed building program):					
Construction and machinery	5,037,500.00	5,850,000.00	812,500.00		
Torpedo boats	1,600,000.00			1,600,000.00	
Armor and armament	2,265,200.00	12,852,579.00	10,587,379.00		
Equipment	255,000.00	180,000.00		75,000.00	
Total	9,157,700.00	18,882,579.00	11,399,879.00 1,675,000.00	1,675,000.00	
Net increase			9,724,879.00		

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

RECAPITULATION.

Naval Establishment.	Final approved estimates, 1913.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	Original estimates submitted to department, 1914.	Decrease by department.
Pay of the Navy	$36,444,051.25	$37,280,971.25	$39,264,662.00	$1,983,690.75		$39,264,662.00	
Pay, miscellaneous	1,000,000.00	1,000,000.00	1,000,000.00			1,000,000.00	
Contingent, Navy	46,000.00	46,000.00	46,000.00			46,000.00	
Care of lepers, etc., island of Guam	14,000.00	14,000.00	14,000.00			14,000.00	
Pay of enlisted men of U. S. S. Georgia		4,300.00			$4,300.00		
Bureau of Navigation	3,334,672.00	3,111,723.00	3,160,877.00	158,627.00	109,473.00	3,155,877.00	[1] $5,000.00
Bureau of Ordnance	13,402,500.00	13,007,500.00	12,949,500.00	850,000.00	908,000.00	12,549,500.00	[1] 400,000.00
Bureau of Equipment	9,428,300.00	8,948,300.00	11,330,000.00	2,381,700.00		11,330,000.00	
Bureau of Yards and Docks	1,570,000.00	1,530,000.00	1,630,000.00	100,000.00		2,770,000.00	1,140,000.00
Public works, navy yards and stations	5,013,800.00	4,623,300.00	6,526,445.00	5,241,945.00	3,338,800.00	8,521,569.00	1,995,124.00
Bureau of Medicine and Surgery	497,000.00	542,000.00	669,000.00	127,000.00		669,000.00	
Bureau of Supplies and Accounts	9,010,943.95	9,192,328.25	9,518,441.75	326,113.50		9,518,441.75	
Bureau of Construction and Repair	8,679,144.00	8,679,144.00	9,194,144.00	715,000.00	200,000.00	9,194,144.00	
Bureau of Steam Engineering	6,596,000.00	6,596,000.00	6,342,000.00	46,000.00	300,000.00	6,407,000.00	65,000.00
Naval Academy	606,920.00	580,620.00	595,240.00	27,940.00	13,320.00	595,240.00	
Marine Corps:							
Paymaster	4,328,281.78	4,387,121.78	4,780,841.78	418,245.00	24,525.00	4,638,781.78	[1] 142,060.00
Quartermaster	2,941,857.00	3,038,857.00	3,275,937.00	242,000.00	4,920.00	3,086,937.00	[1] 189,000.00
Increase of the Navy (exclusive of first year of new building program):							
Construction and machinery	4,808,705.00	4,808,705.00	13,550,728.00	8,742,023.00		13,550,728.00	
Torpedo boats	921,647.00	921,647.00	2,058,363.00	1,136,716.00		2,058,363.00	
Colliers	581,321.48	581,321.48			581,321.48		
Armor and armament	5,000,000 00	5,000,000 00	6,500,000.00	1,500,000.00		6,500,000.00	
Equipment	100,000.00	100,000.00	175,000.00	75,000.00		175,000.00	
Total (exclusive of new building program)	114,325,143.46	113,993,838.76	132,581,179.53	24,072,000.25	5,484,659.48	135,045,243.53	2,464,064.00
Increase of the Navy (first year of proposed building program)							
Construction and machinery	4,712,000.00	5,037,500.00	5,850,000.00	812,500.00		5,850,000.00	
Torpedo boats		1,600,000.00			1,600,000.00		
Armor and armament	8,019,800.00	2,265,200.00	12,852,579.00	10,587,379.00		12,852,579.00	
Equipment	180,000.00	255,000.00	180,000.00		75,000.00	180,000.00	
Grand total	127,236,943.46	123,151,538.76	151,463,758.53	35,471,879.25 7,159,659.48	7,159,659.48	153,927,822.53	2,464,064.00
Net increase				28,312,219.77			

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[1] Increase due to submission of supplemental estimates, approved by department.

Navy Department.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Office of the Secretary of the Navy:					
Salaries	$74,824.45	$79,040.00			
Appointment clerk (new) in lieu of clerk of class 4			$200.00		
Chief of Division of Correspondence (new) in lieu of clerk of class 4			200.00		
Clerk of class 2 (new)			1,400.00		$1,400.00
Clerk of class 1 (new)			1,200.00		1,200.00
Telegraph operator at $1,300 (increase of $200 submitted)			200.00		
Laborer (new)			660.00		660.00
Telephone switchboard operator at $720 (new) in lieu of assistant telephone switchboard operator at $600			120.00		
Total	74,824.45	79,040.00	3,980.00		3,260.00
Office of the Solicitor—Salaries	16,990.00	16,990.00			
Library of the Navy Department—Salaries	3,980.00	3,980.00			
Office of the Naval Records of the Rebellion:					
Salaries	17,540.00	17,540.00			
Necessary traveling expenses for the collection of records	100.00	100.00			
Publication of Naval Records of the Rebellion	21,000.00	10,500.00		$10,500.00	
Total	38,640.00	28,140.00		10,500.00	
Office of the Judge Advocate General—Salaries	12,320.00	12,320.00			
Bureau of Navigation—Salaries	78,723.67	83,940.00			
1 chief clerk (increase of $500 submitted)			500.00		
2 chiefs of divisions			4,000.00		4,000.00
1 copyist			840.00		
Total	78,723.67	83,940.00	5,340.00		4,000.00
Office of Naval Intelligence—					
Salaries	12,100.00	13,160.00			
Chief clerk (new) in lieu of clerk, class 4			200.00		
Clerk of class 3 (new) in lieu of clerk of class 2			200.00		
Laborer (new)			660.00		660.00
Total	12,100.00	13,160.00	1,060.00		660.00

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

Navy Department.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Bureau of Equipment:					
Salaries	$32,814.72	$34,120.00			
Chief clerk, at $2,500 (increase of $500 submitted)			$500.00		
Clerk of class 4 (new) in lieu of clerk at $1,300			500.00		
Clerk of class 2 (new) in lieu of clerk of class 1			200.00		
Blue-printer, at $720 (increase of $120 submitted)			120.00		
Total	32,814.72	34,120.00	1,320.00		
Hydrographic Office:					
Salaries	120,233.12	127,620.00			
Assistant, at $2,500 (increase of $300)			300.00		
Assistant, at $2,200 (increase of $200)			200.00		
Nautical expert, at $1,800 (increase of $200)			200.00		
Nautical expert (submitted)			1,200.00		$1,200.00
Clerk, class 1 (submitted)			1,200.00		1,200.00
Clerk, class E (in lieu of copyist, at $900)			100.00		
2 copyists, at $840 each (in lieu of 2 at $720 each)			240.00		
Computer, at $1,600 (increase of $200)			200.00		
1 helper (submitted)			720.00		720.00
Contingent and miscellaneous expenses, Hydrographic Office—					
For purchase of copper plates, etc	26,000.00	26,000.00			
Lithographic press	6,500.00			$6,500.00	
Additional drafting equipment	820.00			820.00	
Additional photographic equipment	3,120.00			3,120.00	
Contingent expenses of branch offices	11,000.00	15,300.00	4,300.00		
Services of necessary employees	17,960.00	24,180.00	6,220.00		
Pilot chart, North Pacific Ocean	2,000.00	2,000.00			
Total	187,633.12	195,100.00	14,880.00	10,440.00	3,120.00
Naval Observatory—					
Salaries, Naval Observatory	43,240.00	52,260.00			
Assistant astronomer, at $2,200 (in lieu of same at $1,800)			400.00		
Assistant astronomer, at $2,000 (in lieu of same at $1,800)			200.00		
Assistant, Department Nautical Instruments (in lieu of same at $1,600)			200.00		
Instrument maker, at $1,600 (in lieu of same at $1,500)			100.00		
Librarian, at $1,800 (in lieu of same at $1,400)			400.00		
Two assistants, at $1,200 each (in lieu of same at $1,000 each)			400.00		

Five assistants, at $1,200 each (in lieu of miscellaneous computations, $5,000)			6,000.00		
Copyist and typewriter, at $900 (submitted)			900.00		900.00
Skilled laborer, at $840 (in lieu of elevator conductor at $720)			120.00		
Storeman and packer, at $840 (in lieu of laborer at $660)			180.00		
Library attendant, at $780 (in lieu of laborer at $660)			120.00		
Contingent and miscellaneous expenses—					
Miscellaneous computations	5,000.00			5,000.00	
Books, etc	750.00	1,000.00	250 00		
Apparatus, etc	2,000.00	2,000.00			
Repairs, etc	3,000.00	3,000.00			
Fuel, etc	8,000.00	14,300.00	6,300.00		
Changes in boiler and dynamo rooms, etc		21,000.00	21,000.00		21,000.00
Moving Hydrographic Office equipment, etc		5,000.00	5,000.00		5,000.00
Replacing continuous-current motors in use by Hydrographic Office with direct-current motors		1,500.00	1,500.00		1,500.00
Electric current for operating motors		1,400.00	1,400.00		1,400.00
Total	61,990.00	101,460.00	44,470.00	5,000.00	29,800.00
Nautical Almanac Office—					
Salaries, Nautical Almanac Office	15,640.00	16,140.00			
Two assistants, at $1,200 each (in lieu of same at $1,000 each)			400.00		
Copyist and typewriter, at $1,000 (in lieu of same at $900)			100.00		
Pay of computers on piecework, etc	7,000.00	7,000.00			
Total	22,640.00	23,140.00	500.00		
Bureau of Steam Engineering:					
Salaries	26,380.00	28,360.00			
Chief clerk (increase of $500 submitted)			500.00		
Clerk of class 3 (in lieu of clerk at $1,100 omitted)			500.00		
Clerk of class 2 (in lieu of clerk at $1,300 omitted)			100.00		
3 clerks of class 1 (1 in lieu of clerk at $1,000, 2 in lieu of stenographers and typewriters, 1 at $1,000 and 1 at $900, all omitted)			700.00		
Clerk at $900 (increase of $60 submitted)			60.00		
2 laborers (1 in lieu of messenger boy at $600 and 1 in lieu of laborer at $600 each omitted)			120.00		
Total	26,380.00	28,360.00	1,980.00		
Bureau of Construction and Repair:					
Salaries	57,800.00	60,840.00			
Chief clerk (increase of $500 submitted)			500.00		
Financial clerk at $2,000 (in lieu of 1 clerk at $1,800 omitted)			200.00		
1 clerk of class 3 (in lieu of 1 clerk at $1,200 omitted)			400.00		
3 clerks at $1,300 each (in lieu of 3 clerks at $1,000 each omitted)			900.00		
4 clerks of class 1 (in lieu of 4 clerks at $1,000 each omitted)			800.00		
Messenger at $840 (in lieu of assistant messenger at $720 omitted)			120.00		
3 messenger boys at $720 each (in lieu of 3 messengr boys at $600 each omitted)			360.00		
2 messenger boys at $480 each (in lieu of 2messene egyobs at $600 each omitted)				240.00	
Total	57,800.00	60,840.00	3,280.00	240.00	

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

Navy Department.	Appropriated, 1913.	Estimates, 1914.	Increase of estimates for 1914 over amount appropriated for 1913 for same purpose.	Decrease of estimates for 1914 as compared with amount appropriated for 1913 for same purpose.	New items, 1914.
Bureau of Ordnance:					
Salaries	$32,960.00	$33,460.00			
Chief clerk (increase of $500 submitted)			$500.00		
Total	32,960.00	33,460.00	500.00		
Bureau of Supplies and Accounts:					
Salaries	112,598.33	123,860.00			
Chief bookkeeper at $2,400 (in lieu of clerk, at $1,000)			1,400.00		
Bookkeeper at $2,000 (in lieu of clerk, at $1,000)			1,000.00		
3 clerks class 4 (in lieu of 4 clerks, at $1,000 each)			2,400.00		
2 clerks class 3 (in lieu of 2 clerks at $1,000 each)			1,200.00		
6 clerks class 2 (in lieu of 6 clerks at $1,000 each)			2,400.00		
4 clerks class 1 (in lieu of 1 clerk at $1,000 and 3 clerks at $900 each)			1,100.00		
4 clerks at $1,100 each (in lieu of 2 clerks at $900 each and 2 copyists at $840 each)			920.00		
2 messenger boys at $600 each (in lieu of 2 messenger boys at $400 each)			400.00		
Total	112,598.33	123,860.00	10,820.00		
Bureau of Medicine and Surgery:					
Salaries	18,300.00	20,200.00			
Chief clerk at $2,500 (increase of $500 submitted)			500.00		
Clerk of class 2 (1 additional submitted)			1,400.00		$1,400.00
Total	18,300.00	20,200.00	1,900.00		1,400.00
Bureau of Yards and Docks:					
Salaries	20,140.00	20,640.00			
Chief clerk (increase of $500 submitted)			500.00		
Total	20,140.00	20,640.00	500.00		
Contingent expenses, Navy Department	69,000.00	72,500.00			
For professional and technical books, etc., for department library			1,000.00		
Fireproof filing equipment			2,500.00		
Total	69,000.00	72,500.00	3,500.00		
NOTE.—The Treasury Department has been requested to include an estimate of $161,000 for printing and binding for the Navy Department, which amount is $16,000 more than the appropriation for the same purpose for the fiscal year 1913.					

RECAPITULATION.

Secretary's office	$74,824.45	$79,040.00	$3,980.00		$3,260.00
Office of the Solicitor	16,990.00	16,990.00			
Library of the Navy Department	3,980.00	3,980.00			
Office of Naval Records of the Rebellion	38,640.00	28,140.00		$10,500.00	
Office of the Judge Advocate General	12,320.00	12,320.00			
Bureau of Navigation	78,723.67	83,940.00	5,340.00		4,000.00
Office of Naval Intelligence	12,100.00	13,160.00	1,060.00		660.00
Bureau of Equipment	32,814.72	34,120.00	1,320.00		
Hydrographic Office	187,633.12	195,100.00	14,880.00	10,440.00	3,120.00
Naval Observatory	61,990.00	101,460.00	44,470.00	5,000.00	29,800.00
Nautical Almanac Office	22,640.00	23,140.00	500.00		
Bureau of Steam Engineering	26,380.00	28,360.00	1,980.00		
Bureau of Construction and Repair	57,800.00	60,840.00	3,280.00	240.00	
Bureau of Ordnance	32,960.00	33,460.00	500.00		
Bureau of Supplies and Accounts	112,598.33	123,860.00	10,820.00		
Bureau of Medicine and Surgery	18,300.00	20,200.00	1,900.00		1,400.00
Bureau of Yards and Docks	20,140.00	20,640.00	500.00		
Contingent expenses, Navy Department	69,000.00	72,500.00	3,500.00		
Total	879,834.29	951,250.00	94,030.00	26,180.00	42,240.00

NOTE.—As the legislative, executive, and judicial appropriation bill was not approved until Aug. 23, 1912, the changes therein provided for did not become effective until Aug. 24, 1912, thereby making the actual appropriations for the legislative expenses of the Navy Department for the fiscal year ending June 30, 1913, amount, in the aggregate, to $879,834.29, or $3,565.71 less than the amount stated in the act, namely, $883,400.

Comparative statement of estimates and appropriations, 1913–14, Navy Department—Continued.

SUMMARY.

	Original estimates, 1913.	Final estimates, 1913.	Appropriated, 1913.	Estimates, 1914.	Increase (+) and decrease (−), estimates 1914, compared with appropriations 1913.	Increase (+) and decrease (−), estimates 1914, compared with final estimates 1913.
Legislative bill	$954,260.00	$942,240.00	$879,834.29	$951,250.00	+ $71,415.71	+ $9,010.00
Naval bill (exclusive of new building program)	113,275,143.46	114,325,143.46	113,993,838.76	132,581,179.53	+18,587,340.77	+18,256,036.07
Permanent annual and indefinite appropriations	2,027,829.00	2,027,829.00	2,027,829.00	1,886,569.00	− 141,260.00	− 141,260.00
Relief and private bills	....	....	10,573.16	....	− 10,573.16	....
Total for Navy Department (exclusive of new building program)	116,257,232.46	117,295,212.46	116,912,075.21	135,418,998.53	+18,506,923.32	+18,123,786.07
New building program (cost of first year's work)	12,911,800.00	12,911,800.00	9,157,700.00	18,882,579.00	+ 9,724,879.00	+ 5,970,779.00
Grand total	129,169,032.46	130,207,012.46	126,069,775.21	154,301,577.53	+28,231,802.32	+24,094,565.07

REPORT OF THE SOLICITOR.

Navy Department,
Office of the Solicitor,
Washington, October 1, 1912.

Sir: The work performed by this office during the last year measures well up to the high standard heretofore maintained, as shown in the reports for previous years, and it is gratifying that, owing to the fact that the whole of the force authorized by law has been employed during the greater part of the last year, compared with the changes in the head of the office during the two preceding years, it has not been necessary to require so much extra time-work on the part of employees.

PARTIAL PAYMENTS UNDER CONTRACT.

The claims made by contractors, as indicated in the last report, on account of the prohibition by the act of March 4, 1911, against paying more than 90 per cent of the value of work done under Navy contracts, which was applicable to contracts then existing, but made on the basis of payment of the full value of work done, were submitted to the Comptroller of the Treasury and by him decided October 16, 1911, adversely to the claimants. Consequently such claims can not be entertained by this department, but the office is not advised as to whether or not the matter will be taken to the Court or Claims.

FREIGHT AND PASSENGER RATES ON SHIPMENTS OF PUBLIC STORES AND TRANSPORTATION OF MEN.

The resistance by the department before the Interstate Commerce Commission to the demands of transportation companies for freight and passenger charges that were believed to be based on unlawful classification and rates has operated to the advantage of the Government. The amounts have not been large, comparatively, in any particular case so far decided, but the cases passed upon, together with those pending, if decided adversely to the transportation companies, will, as precedents, effect a large saving to the Government hereafter.

The determination of rates and classification affecting shipments and transportation by the Navy Department will tend to clear uncertainties as to the cost thereof, establish uniformity of rates, and so naturally diminish the number of cases necessary to be presented to the commission.

REIMBURSEMENT FOR USE OF PATENTS.

The act of June 25, 1910 (36 Stat., 851), authorizing the owners of patents used by the Government to bring suit in the Court of Claims for compensation will, if a case recently decided by the Supreme Court (Crozier *v.* Krupp, 224 U. S., 290) proves to have the result now expected, have a greater effect than was at first supposed in the way of simplifying the whole matter of compensating patentees for the use of their invention. In the case cited the court held that inasmuch as an inventor or the owner of a patent has, under said statute, a remedy for any wrong to him by the Government, such inventor or owner of the patent could not obtain an injunction against the manufacture by a contractor of a patented article intended for the Government's use. Such decision places the act mentioned in the category of legislation exercising the right of eminent domain, and frees the hand of the department to appropriate and use without delay the property rights of the citizen without depriving him of just compensation. This privilege is of great value to the department in ordinary times and will save it, in times of war, from annoyances of a kind that have reflected discredit on the patriotism of some citizens in times past.

COLLISION CLAIMS.

During the fiscal year a number of claims against the Government arising out of collisions with naval vessels have been investigated. A number of these claims, involving amounts not in excess of $500, were reported to the Congress for payment in accordance with the provisions of the act of June 24, 1910 (36 Stat., 607). The necessary appropriation for these particular claims having been authorized, the claimants in each instance have been promptly paid the amounts found to be due.

A number of other claims, mainly involving amounts in excess of $500, have been investigated and were reported to the last session of the Congress with the recommendation of the department that they be allowed. These claims were included in a general collision claims bill, which bill was favorably considered and passed by the Senate. The bill has also been favorably considered by the House Committee on Claims and reported to the House of Representatives with a recommendation that it be passed, but further action by the House was not taken prior to adjournment. Several of the items in this bill involved claims of less than $500 that arose prior to the passage of the act of June 24, 1910, and a number of the other claims involved collisions in which foreign-owned vessesls were concerned. Only such claims are included in this bill as it is believed judgment would be rendered against the United States, could suit be instituted in the Federal courts, and it would seem that it works a hardship on the claimants and tends to give rise to unfavorable comment, especially on the part of the foreign vessel owners, to unduly delay settlement of the claims.

In a number of the collision cases that have been considered the department has presented claims covering the cost of repairing the damages to the naval vessel to the owners of the private vessels responsible for the damages, and has been successful in obtaining reimbursement. In other cases libel proceedings against the privately owned vessels have been instituted through the Department of Justice, which proceedings are now either before the courts or in process of settlement pending further litigation.

The amounts collected by the department to cover the cost of repairs to naval vessels must, under the rulings of the Comptroller of the Treasury, be deposited in the general fund of the Treasury in accordance with the provisions of section 3617 of the Revised Statutes, and the naval appropriation from which the cost of repairs in the first instance is expended is thus depleted.

THE EIGHT-HOUR WORKDAY.

During the last few years legislation has gone far toward the complete establishment of a universal eight-hour workday in the United States. The provision in the act of June 19, 1912, relative to this matter is more far reaching and effective than any previous act by reason of the requirement therein that—

> every contract hereafter made to which the United States, any Territory, or the District of Columbia is a party, and every such contract made for or on behalf of the United States or any Territory or said District which may require or involve the employment of laborers or mechanics shall contain a provision that no laborer or mechanic doing any part of the work contemplated by the contract, in the employ of the contractor or any subcontractor contracting for any part of said work contemplated, shall be required or permitted to work more than eight hours in any one calendar day upon such work; and every such contract shall stipulate a penalty for each violation of such provision in such contract of $5 for each laborer or mechanic for every calendar day in which he shall be required or permitted to labor more than eight hours upon said work.

Said act stipulates that its provisions shall not go into effect until January 1, 1913, but the naval appropriation act of August 22 provides that the requirements of the act of June 19 shall be in force as to all contracts authorized by the naval act from and after the passage thereof. The limiting of the hours of labor to a shorter period will, of course, increase the cost to the Government of ships, materials, and supplies. The effect of this legislation on the bidding for ship contracts can not at present be foreseen.

DOMESTIC MATERIAL.

The act of August 22, as did the one for the previous year approved March 4, 1911, omitted the customary stipulation that the vessels authorized for the increase of the Navy should be built of material of domestic manufacture, and in drafting the contracts for the vessels authorized by the later act the provisions relating to the use of domestic material which had been embodied in the contracts for some of the vessels authorized by the act of March 4, 1911, were omitted.

The act "to provide for the opening, maintenance, protection, and operation of the Panama Canal, and the sanitation and government of the Canal Zone," approved August 24, 1912, provides (sec. 5) that—

> All materials of foreign production which may be necessary for the construction or repair of vessels built in the United States and all such materials necessary for the building or repair of their machinery and all articles necessary for their outfit and equipment may be imported into the United States free of duty under such regulations as the Secretary of the Treasury may prescribe.

This provision would seem to be practically equivalent to a specific provision that contractors should not be required to use domestic material in the construction of naval vessels, and under its operation a proportionate decrease in the cost of vessels built for the Navy will, in all probability, be effected.

A tentative draft of regulations proposed by the Secretary of the Treasury concerning the admission of materials and articles under said act was recently submitted to and considered by this department, but the regulations have not yet been promulgated by the Treasury Department.

The naval acts for 1911 and 1912 also omitted the provision concerning changes in the plans and specifications during the progress of the work on vessels under contract, but the Attorney General, in an opinion dated December 21, 1911, held that it was competent for the department to insert in the contracts a provision for making changes and for the determination of the amount or increased or diminished compensation arising therefrom, and the provision that had theretofore been customarily inserted in the contracts as provided by the laws of the previous years is maintained.

IMPROVEMENT OF ELIZABETH RIVER.

The widening and deepening of the channel of the southern branch of Elizabeth River, opposite Dry Dock No. 3, at the navy yard, Norfolk, Va., has not yet been begun because of the controversy with the owner of a sawdust and shell fill that must be partially dredged away. Proceedings begun for the condemnation of this property were discontinued by the Department of Justice, and the owners have since applied for an injunction restraining the Government from removing the fill. This injunction is set for hearing early in the fall term of the United States court at Norfolk, Va., and nothing further can be done until the opinion of the court has been rendered. It is now uncertain as to when a conclusion in the matter may be reached.

BRANCH RAILROAD TO NAVY YARD, WASHINGTON.

The controversy over the title to the land to be occupied by the proposed spur track and switch yard is now pending before the courts. While there is no prospect of an early determination of the proceedings, it is believed that the suit that has been filed, in which the question of the title to all lands desired for the construction of the tracks will be finally decided, will remove the objections heretofore offered to the execution of the agreement contemplated by the act of June 24, 1910. Negotiations have been again instituted looking to the execution of the agreement. The compensation for this delay is that the expense of the undertaking will be considerably lessened by the establishment of the Government's title to the greater part of the lands, and the danger of having to defend against claims in the future will be removed.

OBSERVATORY CIRCLE LANDS.

Condemnation proceedings were resorted to by the department for the acquisition of the tract known as Normanstone, lying within the

Observatory Circle. The price fixed by the commission for such land amounted to $79,218.30, averaging about $1.05 a foot for the whole tract. This price appeared to be excessive, but opinions and estimates obtained from disinterested experts indicate that in all probability no more favorable terms for the Government could be secured in any way, and it is believed that an exchange for said land at the price named of certain land outside the circle belonging to the Government, together with the payment of a sum of money to be agreed on, would be the best arrangement for the Government's interests that could be effected. Negotiations looking to such a settlement of the matter are now in progress.

MEASURED MILE COURSE IN PUGET SOUND.

The measured course in Puget Sound heretofore used for the standardization of vessels on the west coast and over which the vessels under construction on the Pacific coast are to be standardized is not marked by permanent beacons, as is the measured course off Rockland, Me., because the Government does not own land in the vicinity upon which such structures could be erected.

ADDITIONAL LAND FOR NAVAL HOSPITAL, NEWPORT, R. I.

The land at Newport, R. I., desired as an addition to the naval hospital site, as mentioned in previous reports, has been acquired by the Government through condemnation proceedings at a price somewhat less than that asked by the owner thereof.

APPROACH FOR NEW RAILROAD AND HIGHWAY BRIDGE AT PORTSMOUTH, N. H.

For the purpose of securing a proper approach for this new bridge, authorized by the act of March 4, 1911, it was necessary for the Government to acquire title to a strip of land in Kittery, Me., containing about 0.87 of an acre. This strip consists of two parcels. One parcel, containing about 0.05 of an acre, the department was able to purchase at a satisfactory price and the negotiations simply await the formal transfer of title. The other and much larger parcel is owned by an estate to which there are a number of heirs. A satisfactory agreement as to the value of this parcel could not be reached, and the Department of Justice has accordingly been requested to acquire title through condemnation. The hearing in the condemnation suit has been set for the December term of the United States court, and it is expected that the title to the land will be acquired before the expiration of the current year.

MISCELLANEOUS LANDS.

Several other questions in respect to the purchase of land are under consideration. One of these relates to the very important question of securing the land necessary to be acquired for the purpose of sinking the wells from which the permanent fresh-water supply at the naval reservation on Pearl Harbor, Hawaii, is to be obtained. The other land questions relate in the main to the acquirement of sites for naval wireless stations.

CASE AGAINST NEW YORK & PORTO RICO STEAMSHIP CO.

As narrated in the report of 1910, suit was brought by the Government in that year in the United States district court, at New York, against the New York & Porto Rico Steamship Co. on account of its neglect to pay damages claimed by the department in the sum of $7,200 on account of the company's failure to furnish transportation for coal from Chesapeake Bay to San Francisco, Cal. The company had failed to sign a contract awarded to it for transporting the coal because it found after submitting a proposal to the department that it could not obtain ships for the purpose, and after requesting the department to divert to San Francisco, for its account, cargoes shipped by other contractors and then in transit to Honolulu, refused to reimburse the extra expense thus incurred by the department. The company's contention was that inasmuch as the contract had not been signed by the parties as required by section 3744 of the Revised Statutes, there was no obligation on the company to reimburse the damages suffered by the Government.

Judgment in favor of the Government was rendered by the court July 3, 1912, assessing the damages in the sum of $9,679.90, with interest. It was important that a decision should be obtained as to the proper interpretation of section 3744 from the point of view involved in this case, and it is highly gratifying that the decision rendered was favorable to the Government's contention. It is understood that the defendant intends making an appeal from the judgment of the district court.

Respectfully submitted.

HARRY W. MILLER, *Solicitor.*

The SECRETARY OF THE NAVY.

REPORT OF THE JUDGE ADVOCATE GENERAL.

NAVY DEPARTMENT,
OFFICE OF THE JUDGE ADVOCATE GENERAL,
Washington, November 6, 1912.

From: Judge Advocate General.
To: Secretary of the Navy.
Subject: Annual Report of the Judge Advocate General of the Navy.

There is submitted herewith the annual report of the operations of this office for the fiscal year 1912.

REFORMS IN THE ADMINISTRATION OF JUSTICE IN THE NAVY.

By the Navy Regulations the Judge Advocate General, in addition to other duties, is charged with "all matters relating to the supervision and control of naval prisons and prisoners" as well as with the duty of reviewing the record of proceedings of every court-martial held in the naval service. A general idea may be had of the volume of work which these duties entail when it is considered that the number of officers and enlisted men of the Navy and Marine Corps who were amenable to trial by court-martial during the past fiscal year was several thousand in excess of the male population of militia age (18 to 45 years) in the District of Columbia as shown by the 1910 census. In addition it should be remembered that naval courts-martial have jurisdiction not only of violations of laws and regulations governing the discipline and administration of the naval service, but also of every conceivable criminal offense committed by members of its personnel whether at sea or on shore, at home or abroad, with the single exception of murder committed within the territorial jurisdiction of the United States. This extensive jurisdiction is now divided between three classes of tribunals, viz, the general court-martial, composed of not less than 5 nor more than 13 officers; the summary court-martial, composed of 3 officers; and, lastly, the deck court, consisting of a single officer. The records of all these courts come to the Judge Advocate General for review, and each record, whether the accused be an officer or enlisted man, is carefully examined for the purpose of determining whether the proceedings have been in all respects legal and the punishment imposed not in excess of authorized limitations. In addition, the commanding officer of any naval vessel is authorized to impose certain minor punishments upon officers and enlisted men under his command—which power, however, as indicated by the data given below, is, in many cases, not exercised, it appearing that too general recourse is had to courts-martial for the punishment of inferior offenses which might be dealt with by the commanding officer himself without the formality of a trial.

In recent years, and particularly during the last fiscal year, considerable attention has been given to reforms in the administration of justice in the Navy, which subject has occupied a large part of the time of the Judge Advocate General. While it has long been recognized, in theory, that the naval prisoner undergoing punishment for offenses against discipline is not a "criminal" in the sense in which that term is commonly understood, nevertheless, in fact, no distinction existed in the past between such naval prisoner, on the one hand, and, on the other, the criminal in civil life convicted of offenses which brand him as a menace to organized society. Both alike were subject to confinement at hard labor in penal institutions where they were garbed and treated as "prisoners" and could not escape the ignominy which everywhere attaches to the name. That a remedy should be found for this condition, so far as concerned the offender against naval discipline, has long been apparent. Accordingly the existing system of punishments for military offenses was carefully investigated and considered by a board of naval officers of which the Judge Advocate General was senior member; the report of which board, dated June 21, 1911, was published in full in my last annual report. In the conclusions of this board naval prisoners were divided into three classes, viz: First, the offender against naval discipline who may by intelligent treatment be converted into a valuable or desirable member of the naval service; second, the offender against naval discipline whose previous record affords little foundation upon which to base hopes of reform; and third, the "criminal," or one convicted of an offense involving moral turpitude or a violation of general laws of the country.

Pursuant to the report of the board above mentioned, the department adopted the policy of sending all offenders of the third class to State prisons instead of indiscriminately confining them, as was formerly done, with men who had been guilty of purely military offenses only, thereby exposing the latter to the evil influences incident upon association with criminals, properly so called. In other respects, no change was made and none is now recommended in the established system of dealing with offenders of the second and third classes whose retention in the Navy could reasonably be expected to prove only detrimental to the best interests of the service, and who are, accordingly, sent to State or naval prisons, as the case may be, with a view to their discharge from the Navy upon expiration of confinement. With no desire to stifle the good aspirations of the criminal or habitual offender, whose reformation is at once the ambition and goal of the professional criminologist, it is, nevertheless, recognized that considerations respecting the greater good of the Navy should at all times be paramount; that service in the Navy must be made an honorable career open to upright young men in all walks of life, who should not be deterred from enlistment by prospects of possible association with criminals. It has long been the policy and endeavor of the department not to enlist in the Navy persons who have previously been guilty of criminal offenses in civil life, and the same cogent reasons demand that those convicted of crime after enlistment should be separated from the service either immediately or upon completing a period of confinement if sentenced thereto by naval court-martial.

As to the first class of offenders given above, namely, those guilty of offenses against naval discipline who may reasonably be expected to develop into desirable members of the service, an entirely different question is presented. With reference to this class of offenders the report of the board above mentioned embodied favorable recommendations concerning the inauguration of a "detention system," and steps were immediately taken to carry such recommendations into effect. The naval reservation at Port Royal, S. C., was selected as the site of the first "United States Naval Disciplinary Barracks." Regulations were adopted for the government of the barracks, which provided, in brief, that enlisted men confined therein should continue to wear the service uniform and should be known as "detentioners" instead of "prisoners;" that they should be put through a carefully selected course in service drills and instruction, so that at the end of their detention, if recommended as desirable, they might be returned to the service as proficient as possible; that after a detentioner had served two-thirds time with excellent conduct or three-fourths time with good conduct, he should be placed on probation at the disciplinary barracks for the remainder of the period of confinement to which he was sentenced, during which probationary period he should be allowed liberty and given the same amount of work and responsibility as if restored to active duty in the service; that if, at the expiration of the probationary period, his conduct warranted such action, the unexecuted portion of the sentence would be remitted and the man unconditionally restored to duty. This last provision makes it possible for any detentioner at the disciplinary barracks whose sentence includes dishonorable discharge to save himself from such a discharge.

This is, in brief, the principal object of the detention system—to transform the offender against law and discipline into a useful member of the service instead of simply giving him a term of imprisonment and then turning him adrift without the credentials generally necessary to secure honest employment in civil life, as was done under the old methods. However, aside from the help given the individual, if we succeed in reforming and retaining in the service, instead of dishonorably discharging, a certain number of our enlisted men, we have made an appreciable financial saving to the Government; because it costs a large sum of money to enlist, transfer to one of the coasts, supply original outfits of clothing, and give the first instructions to each recruit. In addition, in the case of prisoners restored to duty instead of being dishonorably discharged from the naval service, the Government saves the cost of civilian clothing, transportation, and cash gratuity which the law provides for furnishing to discharged naval prisoners.

The mitigation of a man's sentence from imprisonment to detention is in all cases conditional, so that if his conduct at any time shall be such as, in the opinion of the Secretary of the Navy, to render his detention in the disciplinary barracks prejudicial to good order and discipline, the clemency exercised in his case may be terminated and the offender transferred to any prison designated by the department, where he will be confined at hard labor in accordance with the original terms of his sentence for the remainder of the period adjudged therein. So, also, if a man's conduct while at the disciplinary barracks should not warrant his restoration to duty, the regulations provide that he shall be discharged from the service at the expiration of the period of confinement to which he was sentenced.

In order that there may be as little as possible of the prison aspect at the disciplinary barracks, it has been the endeavor of those officially connected therewith to make the barracks, in effect, a correctional school. In addition to the daily drills and work, detentioners are allowed and encouraged to take part in athletic exercises. Nevertheless, it has never been the intention to make the disciplinary barracks attractive to enlisted men confined therein, but, on the contrary, the rigid routine of drills and useful work which is at all times maintained is very exacting and calculated, when combined with deprivation of liberty, to render those who have once experienced such discipline reluctant to expose themselves by further misconduct to a second term of confinement in the disciplinary barracks.

As already stated, the first naval disciplinary barracks were established at Port Royal, S. C. This location was selected because of the generally temperate climatic conditions, permitting of outdoor drills during the greater part of the year. These barracks have been in operation since September 1, 1911, and while it is yet too soon to determine definitely the results which may be achieved by the detention system in our Navy, the commanding officer's report for the 10 months ended June 30, 1912, is regarded as encouraging. The following data are taken from said report:

Report of general court-martial detentioners received at the United States Naval Disciplinary Barracks, Port Royal, S. C., from Sept. 1, 1911, to June 30, 1912.

DETENTIONERS.

	Navy.	Marine Corps.	Total.
Received	355	96	451
Reconfined for misconduct	31	7	38
Recaptured after having escaped from barracks	....	1	1
Restored to duty unconditionally	1	....	1
Restored to duty on probation	172	48	220
Transferred to prisons	9	1	10
Discharged	48	15	63
In detention June 30, 1912	156	40	196

PROBATIONERS.

	Navy.	Marine Corps.	Total.
Number of detentioners placed on probation	172	48	220
Restored to duty unconditionally	85	15	100
Discharged	4	1	5
Reconfined for misconduct	31	7	38
Deserted	2	3	5
On probation June 30, 1912	50	22	72

CHARACTER OF DISCHARGE.

	Navy.	Marine Corps.	Total.
Ordinary discharge	8	1	9
Medical survey	1	4	5
Undesirable for the service	6	6	12
Bad-conduct discharge	1	....	1
Dishonorable discharge, recommended for reenlistment	10	2	12
Dishonorable discharge, not recommended for reenlistment	26	3	29
Total	....	....	68

It is of particular interest to note from the above statement that of a total of 220 detentioners who were placed on probation at the disciplinary barracks during the period covered by the commanding officer's report only 5 deserted, although the probationers were allowed liberty and had opportunity to abandon the service had they been so inclined. It will further be noted that during the same period 38 probationers were reconfined for misconduct; this number combined with the number who deserted makes a total of only 43 men, or 19.54 per cent of the whole number on probation who may be regarded as having wholly or partially failed to justify the special clemency exercised in their cases. In short, the results to date may well be said to justify the action taken by the department in adopting the detention system in our Navy, while even better results may be expected in the future, as it is believed that the system will eventually prove so successful that men who have had several months' training at disciplinary barracks will exert a good influence on the newcomers and will do much in preventing them from again committing themselves.

After observing for several months the operation of the disciplinary barracks at Port Royal, S. C., the department felt warranted in establishing similar barracks on the west coast, which was accordingly done at the navy yard, Puget Sound, Wash., June 1, 1912. The short time during which the last-named barracks have been in operation does not afford any statistics of definite value.

When the detention system was inaugurated it was expressly provided in the regulations adopted by the department that enlisted men convicted of desertion should not be sent to disciplinary barracks in mitigation of the sentences imposed by courts-martial in their cases. This provision was due to the legislative policy which prohibited the reenlistment of such deserters in the naval service as well as rendering them forever incapable of holding any office of trust or profit under the United States or of exercising any rights of citizenship thereof. However, by the act of August 22, 1912, these disabilities as to deserters in time of peace were removed, and such deserters may now, in the discretion of the department, be reenlisted or retained in the Navy to serve out the unexpired portion of their enlistments. Accordingly, certain convicted deserters are now sent to disciplinary barracks under the same rules and subject to the same conditions as other offenders.

One of the benefits resulting from the detention system which is deemed particularly worthy of comment is that detentioners, after serving satisfactorily two-thirds or three-fourths, as the case may be, of the confinement to which sentenced, are restored to duty on probation *at the barracks* instead of being transferred to general duty in the service, as was formerly the practice when such men were confined in naval prisons. As a result of this fact the conduct of such probationers is at all times carefully observed by the officers in charge of the barracks and a more satisfactory conclusion reached as to the desirability of retaining such men in the service than was possible under the former system.

In the case of enlisted men confined in naval prisons it is provided by the rules issued by the department that after any such man has served one-half of the period of confinement to which sentenced he may make written request addressed to the Secretary of the Navy to be restored to duty on probation. This request must be forwarded through the commanding officer of the prison with a recommendation of the latter, so that the department in acting upon such request may have the opinion of those who have had the prisoner under personal observation, which opinion is given consideration in connection with the man's whole record since he joined the naval service, the nature of his offense, and the interests of the service regarded from a disciplinary point of view. If such request is favorably acted upon the prisoner, as already stated, is transferred to general duty in the service on probation. Formerly it was required that a monthly conduct report of each man on probation be sent by his commanding officer to the Judge Advocate General. This requirement involved extra work on the part of certain commissioned and petty officers where the man was sent, with the natural consequence that there was a general tendency on the part of such officers to regard probationers as a source of more or less annoyance and an unwelcome addition to the command. Accordingly, the practice has now been changed so that no report is required in such cases unless the probationer commits an offense of such nature that his commanding officer believes that the probation should be terminated and so recommends. In such event the probationer is allowed to forward a written statement of his case with the report of the commanding officer for consideration of the department.

Men sent to the naval disciplinary barracks, while undergoing detention, forfeit all pay and allowances the same as enlisted men confined in naval prisons. In the latter case the department's attention was frequently called to the hardship which such forfeiture of pay caused members of prisoners' families, who oftentimes suffered greater punishment in consequence of such sentences than the prisoner himself. The practice accordingly developed in deserving cases, where the dependent relative is unable to work, is in destitute circumstances and would otherwise become an object of charity or a public charge upon the community, of remitting the forfeiture of pay under such circumstances on condition that the prisoner allotted such pay to those who were dependent upon him for support and who were in the above-described condition. The same practice has been extended to the cases of detentioners confined at disciplinary barracks. Whenever an appeal is received from alleged destitute members of a prisoner's or detentioner's family, the department requests an investigation thereof by the local mayor, chief of police, or board of charity, and has in the past been ably assisted by such authorities in determining whether special clemency of this nature should be exercised.

From the foregoing it will be seen that the whole subject of the treatment of prisoners in the Navy has, in general, been developed along modern ideas of prison reform. It is needless to say that this has resulted in placing a great deal of additional work upon the office of the Judge Advocate General, which is believed, however, to be fully warranted by the results which are being accomplished and the ability to give individual attention to the case of each offender in the entire service to the end that the greatest amount of good both to himself and to the Government may be obtained.

The following data concerning the work of this office for the fiscal year have been compiled:

GENERAL COURTS-MARTIAL.

Charges and specifications drawn up in this office during the fiscal year.

	Navy.	Marine Corps.	Total.
Officers	14	4	18
Enlisted men	1,160	264	1,424
Total	1,174	268	1,442

Charges withdrawn.

To other courts-martial	4
On account of insanity or physical disability	11
Prisoners escaped	3
By order of department	2
Total	20
Trial delayed beyond end of fiscal year	1
Total	21
Cases tried by order of the department	1,421

Trials held at each naval station.

Portsmouth, N. H	33
Boston, Mass	143
New York, N. Y	365
Philadelphia, Pa	267
Norfolk, Va	286
Mare Island, Cal	196
Puget Sound, Wash	81
Annapolis, Md	2
Port Royal, S. C	13
Special	35
Total	1,421

Trials by order of officers authorized to convene general courts-martial.

	Navy.	Marine Corps.	Total.
Officers	8	3	11
Enlisted men	162	60	222
Total	170	63	233

Total trials.

	Navy.	Marine Corps.	Total.
Officers:			
By order of the Secretary of the Navy	11	4	15
By order of other officers	8	3	11
Total	19	7	26
Enlisted men:			
By order of the Secretary of the Navy	1,157	264	1,421
By order of other officers	162	60	222
Total	1,319	324	1,643
Grand total	1,338	331	1,669

Trials of officers.

Convicted	23
Acquitted	2
Total	25
Trial delayed beyond end of fiscal year	1
Total	26

Trials of enlisted men.

	Navy.	Marine Corps.	Total.
Convicted	1,265	315	1,580
Acquitted	52	9	61
Disapproved	2		2
Total	1,319	324	1,643

Schedule of principal offenses.

	Navy.	Marine Corps.	Total.
OFFICERS.			
Absence without leave	1		1
Absence without leave and drunkenness	1		1
Absence without leave, drunkenness on duty, and conduct to the prejudice of good order and discipline	1		1
Breaking arrest, absence without leave, and conduct to the prejudice of good order and discipline	1		1
Conduct to the prejudice of good order and discipline	1		1
Conduct to the prejudice of good order and discipline, and drunkenness		1	1
Conduct unbecoming an officer and a gentleman, and conduct to the prejudice of good order and discipline	1		1
Conduct unbecoming an officer and a gentleman, falsehood, and scandalous conduct tending to the destruction of good morals		1	1
Conduct unbecoming an officer and a gentleman and scandalous conduct tending to the destruction of good morals	1		1
Culpable inefficiency in the performance of duty	1		1
Disobeying the lawful order of his superior officer and absence without leave		1	1
Disobeying the lawful order of his superior officer and drunkenness on duty	1		1
Drunkenness	1	1	2
Drunkenness on duty	2		2
Drunkenness on duty and violation of a lawful regulation issued by the Secretary of the Navy	1		1
Failing to obey the lawful order of his superior officer	1		1
Neglect of duty	1		1
Neglect of duty, falsehood, and conduct unbecoming an officer and a gentleman		1	1
Scandalous conduct tending to the destruction of good morals		1	1
Violation of a lawful regulation issued by the Secretary of the Navy, conduct to the prejudice of good order and discipline, and neglect of duty	1		1
Violation of a lawful regulation issued by the Secretary of the Navy, neglect of duty, and through negligence suffering a vessel of the Navy to be hazarded	1		1
Total	17	6	23
Acquitted	1	1	2
Trial delayed beyond end of fiscal year	1		1
Total	19	7	26
ENLISTED MEN.			
Absence without leave or after his leave had expired	236	46	282
Absence without leave and breaking arrest	7	5	12
Absence without leave and fraudulent enlistment		1	1
Absence without leave, or after his leave had expired, and conduct to the prejudice of good order and discipline	48	21	69
Assaulting another person in the service	3	5	8
Assault with intent to kill	1		1
Assaulting a sentinel	5		5
Assaulting and striking a superior officer or threat of same	3	3	6
Assaulting with a deadly weapon and wounding another person in the service	5	1	6
Assault with intent to commit rape	1		1
Breaking arrest	2	2	4
Conduct to the prejudice of good order and discipline	40	12	52
Culpable inefficiency in the performance of duty	1	3	4
Desertion	503	64	567
Desertion and fraudulent enlistment	87	51	138
Desertion *and* conduct to the prejudice of good order and discipline, or breaking arrest, or scandalous conduct	10	4	14

Schedule of principal offenses—Continued.

	Navy.	Marine Corps.	Total.
ENLISTED MEN—continued.			
Disobeying a lawful order	18	5	23
Disrespectful in language and deportment to a superior officer	1	....	1
Drunkenness	6	5	11
Drunkenness on duty	10	16	26
Falsehood	1	....	1
Forgery	1	....	1
Fraudulent enlistment	169	31	200
Leaving station before being regularly relieved	1	2	3
Manslaughter	1	....	1
Neglect of duty	....	6	6
Refusing to obey the lawful order of a superior officer	25	8	33
Resisting arrest	2	....	2
Scandalous conduct tending to the destruction of good morals	35	8	43
Sleeping on watch or post	2	5	7
Sodomy	5	2	7
Theft	26	8	34
Using abusive, profane, or obscene language to a superior officer, or to another person in the service	4	....	4
Violation of art. 14, A. G. N.; stealing, selling, embezzling, or unlawfully disposing of Government property	6	1	7
Total	1,265	315	1,580
Acquitted	52	9	61
Disapproved	2	....	2
Total	1,319	324	1,643

SUMMARY COURTS-MARTIAL.

	Navy.	Marine Corps.	Total.
Records received and revised	9,202	1,864	11,066
Cases disapproved by the department	143	46	189
Acquitted	134	39	173
Bad-conduct discharges	1,493	325	1,818
Average trials per month	767	155	922

DECK COURTS.

	Navy.	Marine Corps.	Total.
Records received and revised	7,214	2,402	9,616
Disapproved	79	12	91
Acquitted	115	16	131
Average trials per month	601	200	801

Percentages of enlisted personnel in the Navy and Marine Corps tried by court-martial.

	Navy.	Marine Corps.
Total enlisted force July 1, 1911	47,612	9,370
Enlisted during the year (approximate)	17,674	4,310
Total during year subject to trial (approximate)	65,286	13,680
Tried and convicted by general court-martial during year	1,265	315
Percentage tried and convicted by general court-martial	1.94	2.30
Tried by summary court-martial during year	9,202	1,864
Percentage tried by summary court-martial	14.09	13.62
Tried by deck court during year	7,214	2,402
Percentage tried by deck court	11.05	17.56

MISCELLANEOUS.

Courts of inquiry received and examined	108
Courts of inquiry followed by courts-martial	14
Courts of inquiry followed by action other than courts-martial	16
Courts of inquiry in which no further action was deemed necessary	78
Boards of investigation received and examined	229
Boards of inquest received and examined	105

The number of trials by general court-martial has increased over last year. The number of trials by summary court-martial also increased as compared with last year, while the number of deck courts decreased; making a considerable increase of total court-martial work in this office. The number of courts of inquiry has greatly increased as a result of Changes in Navy Regulations No. 15 (art. 1649), requiring that a court of inquiry shall be held under certain circumstances in which such courts were formerly not mandatory. This increase is shown in the following table:

COURTS OF INQUIRY.

1909	11
1910	29
1911	37
1912	108

EXAMINING BOARDS.

Officers of the Navy:	
Examined for promotion	416
Failed professionally	9
Failed physically	18
Passed for promotion	389
Officers of the Marine Corps:	
Examined for promotion	12
Failed professionally	1
Failed physically	1
Passed for promotion	10

RETIRING BOARDS.

Officers of the Navy	46
Officers of the Marine Corps	3
Total	49

EXAMINING BOARDS OF CANDIDATES FOR ADMISSION TO THE NAVY AS OFFICERS.

Medical Corps:	
Examined	41
Failed professionally	7
Failed physically	15
Failed morally	1
Passed and appointed	13
Withdrew	5
Pay Corps:	
Examined	7
Failed professionally	1
Failed physically	1
Passed and appointed	5
Chaplains:	
Examined for admission	1
Failed professionally and mentally	1
Total number of examinations for promotion, Navy and Marine Corps	428
Total number of examinations for retirement, Navy and Marine Corps	49
Total number of examinations for admission to the Navy	49
Total	526

LEGISLATION.[1]

Senate and House bills, joint resolutions, and proposed amendments referred to the department for recommendation, etc.

Senate bills, etc.:	
Private—	
Favorable action recommended	2
Unfavorable action recommended	29
Information furnished, as requested	1
Not finally disposed of	2
Total	34
Public—	
Favorable action recommended	10
Unfavorable action recommended	6
Answered without specific recommendation	2
Information furnished, as requested	4
Not finally disposed of	3
Total	25
Total Senate bills, etc., referred	59
House bills, etc.:	
Private—	
Favorable action recommended	3
Unfavorable action recommended	32
Answered without specific recommendation	1
General legislation recommended	3
Not finally disposed of	1
Total	40
Public—	
Favorable action recommended	10
Unfavorable action recommended	5
Total	15
Total House bills, etc., referred	55
Statutes, etc., drafted:	
Public bills or amendments thereto drafted and submitted to Congress	31

The following legislation recommended or approved by the department has been enacted since the annual report of the Judge Advocate General for the year 1911:

S. 2004. To amend section 1505 of the Revised Statutes. (Approved Mar. 11, 1912; reduces the period of suspension of officers failing professionally upon examination for promotion to six months, and provides that such officers shall suffer a loss of numbers equal to the average six months' rate of promotion to the grade for which examined; also, that officers failing upon reexamination shall be dropped with not more than one year's pay.)

S. 3211. Authorizing that the commission of ensign be given midshipmen upon graduation from the Naval Academy. (Approved Mar. 7, 1912.)

H. R. 17483. Amending sections 1998, 1420, and 1624, Revised Statutes, and to authorize the President, in certain cases, to mitigate or remit the loss of rights of citizenship imposed by law upon deserters from the military or naval service, and to authorize certain reenlistments in the Army and Navy. (Provides that persons hereafter deserting in time of peace shall not forfeit their rights of citizenship; authorizes the President to remit or mitigate the loss of rights of citizenship heretofore imposed where the offense was committed in time of peace; and permits reenlistment of persons deserting in time of peace.) (Approved Aug. 22, 1912.)

The naval appropriation act, approved August 22, 1912, also contained the following, which had been recommended or approved by the department:

Pay Corps, increase in grades of paymaster, passed assistant paymaster, and assistant paymaster.
Hospital stewards, pay of, under permanent appointments.
Death gratuity, amendment of law.
Retired officers, employment on active duty.

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[1] Includes all action up to the adjournment of the Sixty-second Congress, second session.

Enlisted men of the U. S. S. *Georgia*, relief from defalcation of Paymaster's Clerk E. V. Lee.
Enlistment, to provide for voluntary extension of term.
Naval Home, disposition of money, etc., of deceased inmates.
Medical Reserve Corps, creation of.
Assistant dental surgeons, authorizing appointment of, in Navy.
Pharmacists, to be commissioned chief pharmacists after six years from date of warrant.

A provision recommended by the department, to make enlisted men of the Marine Corps eligible for designation as Navy mail clerks and assistant Navy mail clerks, is contained in the post-office appropriation bill, approved August 24, 1912.

Status of proposed legislation.

The status of proposed legislation relating to the personnel which originated in the department, or has received the department's approval, but upon which final action has not been taken by Congress, is as follows:

Administration of justice, to amend act relating to, and to provide for the administration of discipline in naval landing forces, etc. (S. 3646 passed Senate Jan. 8, 1912; pending before House Committee on Naval Affairs.)
Retirement of enlisted men after 16, 20, and 25 years' service. (S. 291 reported in Senate May 24, 1911; no action in House upon H. R. 1235.)
Deck court records, destruction of. (S. 1724 passed Senate May 29, 1911; reported in House May 15, 1912.)
Naval attachés, to fix rank of. (Gives naval attachés temporary rank of captain or commander. S. 2316 passed Senate May 29, 1911; pending before House Committee on Naval Affairs.)
Reserve personnel for Navy and Marine Corps. (No action other than introduction of S. 3644.)
Naval examining and retiring boards, to simplify procedure of. (S. 3643 passed Senate Jan. 8, 1912; no action in House.)
Naturalization of alien enlisted men. (S. 2235, passed Senate Feb. 6, 1912; now pending before House Committee on Naturalization and Immigration.)
Fleet staff officers, new mode of appointing, etc. (S. 3640, passed Senate Jan. 8, 1912; no action in House.)
Naval Home, disposition of pensions of inmates. (S. 4306, passed Senate Feb. 6, 1912; referred to House Committee on Invalid Pensions.)
Chief petty officers, pay of under permanent appointments, etc. (No action in either House.)
Secretary to the Admiral of the Navy, increase in pay of. (Inserted in naval appropriation bill as passed by Senate, but eliminated in conference.)
Retired officers, permitting employment of in diplomatic or consular service. (H. R. 23832, reported favorably May 15, 1912.)
Retired officers, allowing employment of by contractors. (No action in either House.)
Retired Navy pay to be 75 per cent in all cases as in Army and Marine Corps. (No action in either House.)
Administration of oaths by boards of inquest. (S. 3642; no action.)
Fixing date from which pay commences on promotion. (S. 5215, S. 7278, and H. R. 20835, no action; H. R. 25715, reported favorably July 27, 1912.)
aval Militia, to promote efficiency of. (H. R. 2588, reported in House May 16, 1912; S. 4584, reported in Senate May 21, 1912.)
Advancement of enlisted men on the retired list for creditable Civil War service. (S. 2605, passed Senate June 15, 1912; no action upon H. R. 11038.)
Officers on retired list with creditable Civil War service to have same benefits as though retired for disability incident to service. (S. 473, passed Senate May 23, 1912; no action upon H. R. 9415.)
Advancement of certain retired officers who served during the Civil War and who have been already advanced on retired list by act of Congress. (S. 1505, reported Feb. 1, 1912; H. R. 749 not reported in House.)
Retired officers, credit for active duty. (S. 5955 favorably reported in Senate May 8, 1912; H. R. 1619 not reported.)

Medals of honor for officers of the Navy and Marine Corps. (S. 2001, passed Senate May 11, 1912; reported in House July 12, 1912.)
Assistant paymasters, to promote after three years' service. (S. 5204; no action.)
Swordmaster at the Naval Academy, rank, pay, etc., of. (H. R. 19234; no action.)
Vice admirals, appointment of two. (H. R. 14106; no action.)
Admiral and vice admiral, establishing temporary grades of. (Stricken from naval appropriation bill in House and Senate on points of order. H. R. 14116; no action.)

LEGISLATION TO PREVENT DISCRIMINATION AGAINST PERSONS BECAUSE OF BEING IN NAVAL UNIFORM.

The department has endeavored to obtain the enactment of legislation to prevent discrimination against persons because of their being in naval uniform.

Legislation has been enacted by the Congress of the United States (Mar. 1, 1911) and by the Legislatures of the States of Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Oklahoma, Connecticut, Florida, and Wyoming, and is pending in several other States, to prevent discrimination against enlisted men of the several branches of the Government service in public places of entertainment or amusement, etc., because of the fact that they are wearing such uniform.

The quality of the personnel of the enlisted men of the Navy and Marine Corps, speaking particularly for those branches of the service, is such that discrimination against them while in uniform is most unfortunate and unnecessary, in view of the excellent character of the young men who are now being enlisted, the vast majority of whom are self-respecting and come from respectable homes. This discrimination also increases the difficulty experienced in recruiting good men and retaining them in the naval service by reenlistment.

In addition to the States named above, the governors of certain States in which there are navy yards or other naval reservations or the waters of which are frequently visited by vessels of the Navy, have been informed of the desire of the department that such legislation be enacted, and have generally shown themselves favorable to legislation to prevent further discrimination of the nature referred to. It is to be hoped that the protection afforded enlisted men wearing the uniform, in order that they may not be refused admittance to places of amusement, etc., or otherwise subjected to humiliation merely because of the fact that they are in the uniform of their country will be extended by legislation to every State in the Union.

CIVIL WAR CASES.

Requests for removal of charge of desertion	37
Granted	17
Not granted	20
Requests for information relative to removal of charge	6
Inquiries as to whether service was honorable	3
Requests for certificates of discharge, discharges in true name, etc	42

DECISIONS OF COMPTROLLER OF THE TREASURY.

Requests for, by disbursing officers, etc	79

REQUESTS FOR CLEMENCY, PARDONS, ETC.

This office during the past year has received, considered, and answered a very large number of written requests for clemency, etc., in the cases of men tried or likely to be tried by court-martial, as well as numerous applications relative to pardons for officers and enlisted men heretofore tried.

PROCEEDINGS IN CIVIL COURTS CONCERNING THE PERSONNEL AS SUCH.

By an amendment to the Navy Regulations, proceedings in the civil courts in all cases concerning the personnel as such have been placed under the cognizance of the Judge Advocate General, instead of under the Solicitor as formerly.

Under the amendment referred to numerous cases have been handled in this office during the year.

MISCELLANEOUS LEGAL WORK.

The purely legal questions referred to this office for investigation and preparation of opinions have increased in number and variety during the past year. This branch of the work of this office is in many respects of even greater importance than the work connected with the administration of justice and is of large and rapidly growing proportions. The questions which arise cover a wide range, requiring exhaustive research in various branches of the law.

In this connection attention is invited to the remarks in my report for last year upon the need of a better law library. During the past year some additions have been made to the library of this office, but it is still comparatively small and limited. Specific recommendations for the purchase of law books have heretofore been addressed to the department.

Robt. L. Russell.

REPORT OF BOARD OF VISITORS TO THE U. S. NAVAL ACADEMY.

UNITED STATES NAVAL ACADEMY,
Annapolis, Md., June 7, 1912.

The Board of Visitors to the United States Naval Academy respectfully submits its report:

The following members of the board were appointed and were present and duly organized June 3, 1912:

Hon. Claude A. Swanson, United States Senator from Virginia.
Hon. A. W. Gregg, Representative from Texas.
Hon. J. F. C. Talbott, Representative from Maryland.
Hon. George A. Loud, Representative from Michigan.
Mr. Frank J. Jones, Cincinnati, Ohio.
Mr. Rosecrans W. Pillsbury, Manchester, N. H.
Mr. Stuart W. Cramer, Charlotte, N. C.
Mr. G. St. L. Abbott, Boston, Mass.
Mr. Alfred Holman, San Francisco, Cal.
Mr. J. M. Whitham, Philadelphia, Pa.
Mr. Thomas R. Proctor, Utica, N. Y.

Hon. Henry Cabot Lodge, United States Senator from Massachusetts, appeared on June 4, and participated in the work of the board.

The board organized by electing Hon. Claude A. Swanson as president, who was authorized to appoint three subcommittees to make reports to the full board upon the subject matters referred to them for investigation and report:

No. 1. Committee on buildings and grounds, improvements, library, and finance: Hon. J. F. C. Talbott, chairman; Hon. George A. Loud, and Mr. Thomas R. Proctor.

No. 2. Committee on administration, regulations, discipline, drill, mess arrangements, practice cruise, hygiene, police, commissary, and athletics: Mr. Alfred Holman, chairman; Mr. G. St. L. Abbott, Mr. Frank J. Jones, and Mr. Rosecrans W. Pillsbury.

No. 3. Committee on admission, discharge, standard of scholarship, officers, and officials: Hon. A. W. Gregg, chairman; Mr. Stuart W. Cramer, and Mr. J. M. Whitham.

Each of the three subcommittees organized and carefully performed the work assigned them and made full report to the board. The reports and recommendations of the subcommittees were indorsed by the board and are herewith incorporated as a part of its full report.

The board made a thorough inspection of the academy. It found the grounds and all of the buildings well kept in satisfactory condition, with the exceptions mentioned in the report of subcommittee No. 1. The academic department of the institution is well organized, splendidly conducted, and productive of good results. The board was pleased to find excellent equipment in the academy in its various departments.

The discipline and conduct of the midshipmen has been remarkably good and deserves special mention and commendation.

The board was especially gratified to find all the officers, professors, instructors, and midshipmen working in perfect accord and harmony.

The academy is in a prosperous and flourishing condition and the results achieved amply justify the expenditures made by the Government for its support.

While the board concurs in all the recommendations made by the subcommittees, yet it presents the following as the most urgent needs at this time:

(1) The acquisition of the property referred to in the report of committee No. 1, the necessity for which is fully stated in said report.

(2) The continued maintenance of the dairy and the acquiring of such land and stock as may be necessary for the efficient and economical operation of same, as recommended in report of committee No. 1.

(3) An appropriation for the completion of the sea wall.

(4) An immediate improvement of the lighting in the dormitories, so as to prevent any impairment of the eyesight of the midshipmen.

(5) An increased appropriation for maintenance, in order to keep the property fully repaired.

The reports of subcommittees Nos. 1, 2, and 3, which have been incorporated in and made a part of the full report of the board, are submitted herewith.

HENRY CABOT LODGE.
CLAUDE A. SWANSON.
A. W. GREGG.
J. FRED C. TALBOTT.
GEO. A. LOUD.
FRANK J. JONES.
ROSECRANS W. PILLSBURY.
STUART W. CRAMER.
ALFRED HOLMAN.
GRAFTON ST. L. ABBOTT.
JAY M. WHITHAM.
THOMAS R. PROCTOR.

No. 1.—REPORT OF THE COMMITTEE ON BUILDINGS AND GROUNDS, IMPROVEMENTS, LIBRARY, AND FINANCE.

(Hon. J. F. C. Talbott, chairman; Hon. George A. Loud, and Mr. Thomas R. Proctor.)

Your committee has inspected the department of buildings and grounds at the Naval Academy, and Commander W. C. Cole, United State Navy, the officer in charge of buildings and grounds, has appeared before it.

It is evident that the current appropriations for maintenance and repair at the Naval Academy must be increased to permit the continuance of sufficient work to prevent deterioration in the Government property. Your committee believes that this work should be kept fully up to date because if the material of the Naval Academy is permitted to deteriorate through lack of appropriation of money for a given year or years, the money that will eventually have to be spent will considerably increase the average expenditure.

The principal unexpected expenditure in the department of buildings and grounds during the year was occasioned by faulty work on the roofs and terraces of the academy, particularly on the terraces of Bancroft Hall. This work is very expensive, and was occasioned partly by the faulty design of the large terraces over the mess hall and partly because of bad workmanship in the completion of the structure of the roof which forms the terrace over the mess hall. This work has cost during the current year approximately $20,000, and it is not practicable to estimate the probable future expenditure, because it is not the intent to rebuild the roof of the terraces unless actually necessary; if not more than $20,000 additional is required to replace the roof of these terraces in first-class condition we may consider ourselves very fortunate.

The copper roofing on the larger buildings will require a possible expenditure during the coming year of $10,000, most of which will be due to the fact that the roofing gang of the original contractors were negligent and careless, to use no stronger term, in the making of the joints and in the provision for expansion and contraction over the large surfaces involved. This defect is particularly apparent on the roofs of the armory and the gymnasium.

The board's attention is also invited to the Naval Academy dairy, which has been in operation during the past year and has supplied the brigade of midshipmen with certified milk at less than the price of the former supply. This dairy was unfortunately located on that portion of the Government reservation in Annapolis which is set aside for strictly academic and esthetic purposes and is adjacent to the land occupied by the naval hospital and the Naval Academy Cemetery. The buildings housing the dairy organization are not expensive in character, and were built with the idea that eventually the dairy itself be moved to the opposite bank of the river or to some location which will be close enough to the Naval Academy to permit the transportation of the dairy products to the commissary department in Bancroft Hall with reasonable facility.

Your committee made careful examination of the barns and various machines, etc., for the providing of absolutely pure milk, and were greatly pleased with the perfection already attained by the officer in charge.

We earnestly recommend that a sufficient number of cows be added to the present herd in order that the hospital, officers' families, and others connected with the academy may purchase their supply of milk from the academy farm. The present farm is not sufficiently large; and if a suitable farm within a few miles of the academy can be obtained at a reasonable price, the committee recommends its purchase.

Your committee strongly recommends the purchase of three city blocks and streets in the city of Annapolis, Md., lying on the northeast side of King George Street. The proposition to purchase in the city of Annapolis from the property owners of the land in question has been under consideration since the first extension of the academy line beyond Hanover Street, made possible by the appropriations of Congress in 1898 and purchased in 1902. The necessity for the purchase of the land has increased during the years since 1902, and at present are:

(*a*) Desirability to make the boundary line of the academy symmetrical.

(*b*) The saving to the Government in the erection of suitable quarters to be occupied by about 40 officers on duty at the Naval Academy, who are unprovided with Government quarters and who are obliged to live in the city of Annapolis, and to whom the Government is paying commutation of quarters amounting to $38,700 during the current fiscal year. This sum capitalized at 4 per cent is $967,500. Furthermore great advantage would be derived if all the officers and instructors, and others connected with the academy, could be provided with quarters within the academic limits to bring them more in touch with the life. spirit, and aims of the institution.

(*c*) A portion of the land which it is proposed to purchase in the city of Annapolis is now built up in part with ramshackle houses and tenements. The dwellings and outhouses of this portion of the land are in a deplorable condition from a sanitary point of view, situated on low ground with the outhouses and privies not connected with the Annapolis sewer. The refuse, water from sinks, etc., being permitted to run in the street gutters to the sewer at the foot of Wagner Street in the angle of the Naval Academy wall, and passes under the ground of the academy. The board appointed by the direction of the Secretary of the Navy in December, 1910, reported specially upon this particular portion of the land which it is proposed to purchase, as one of the possible causes of infectious diseases.

The committee also recommends the completion of the sea wall at the Naval Academy: (*a*) Around the site of the new power house, and (*b*) from the termination of (*a*) to the extremity of the Naval Academy boundary wall at the county bridge.

(*a*) The contract for the building of the sea wall around the site of the new power house was originally let for $150,000. After partly completing this work, the contractors found it impossible to place the granite capping on about 85 per cent of the wall, because the piling would not stand the weight of the capping. The contractors stopped work, claiming that the Government had not correctly informed them of the character of the ground on which it was proposed to build the sea wall. The Government claimed that they did not guarantee any absolute information on this point. Because the contractors stopped work, the contract was annulled. Estimate was made of the amount of work already done on the contract by the contractors; settlement was offered and was refused by the contractors, who are now suing in the courts for an adjustment of their claim.

The new power house is now completed, both as to the building and the installation of the plant, and it is most necessary that the sea wall around the power house be completed at once. It is considered that in this work it will be necessary to drive a new line of piles just outside of the present sea wall, topping the piles with rubble and stone to prevent any further motion of the sea wall in that direction, then place the capping stones and make the inside fills.

(*b*) This portion of the sea wall from the end of the sea wall around the site of the new power house to the end of the boundary wall at the county bridge is now finished in piling with wooden capping. All this portion of the sea wall shows signs of moving out of line due to natural deterioration and the undermining action of the water flow. It has been in place for 20 years. To complete the 2,390 feet of this sea wall between the site of the new power house and the county bridge, it is contemplated that a 15-foot wall on piling to solid strata to permit, if desired, dredging to 9 feet of water alongside the wall, with the capping 5 feet above mean low water datum, will be necessary.

Your committee notes that the sewage of the Naval Academy, and also that of the city of Annapolis, drains into the Severn River and the harbor of Annapolis. This condition is a menace to the health of the Naval Academy, and your committee recommends the establishment of a sewage-disposal plant. It suggests in this connection the desirability of concerted action on this question between the Naval Academy authorities (Federal Government), the city of Annapolis, the county of Anne Arundel, and the State of Maryland for the equitable division of the expense of the sewage-disposal plant for the care of the sewage of the peninsula upon which Annapolis and the Naval Academy are situated.

The committee find the lighting of dormitories in Bancroft Hall very unsatisfactory for students' work and advise immediate improvement of same.

J. Fred C. Talbott,
Geo. A. Loud,
Thomas R. Proctor,
Committee.

No. 2.—Report of Committee on Administration, Regulations, Discipline, Drill, Mess Arrangements, Practice Cruise, Hygiene, Police, Commissary, and Athletics.

(Mr. Alfred Holman, chairman; Mr. G. St. L. Abbott, Mr. Frank J. Jones, Mr. Rosecrans W. Pillsbury.)

Within the limits of time at our disposal we have taken up the subjects committed to us and in pursuance thereof have held interviews with the heads of the several departments connected with the administration of the academy as outlined above. We have visited the various buildings and departments and have personally inspected the mess arrangements to the extent of sharing a meal in the temporary mess hall.

The administration, regulations, and discipline are commended by the committee as judicious and effective, as is manifested by the good order, efficiency, and esprit du corps observable in the appearance and physical condition of the midshipmen in their bearing and conduct on and off duty.

The drill in artillery and infantry maneuvers show skill and training of a superior character. It is the opinion of the committee that conditions under this head exhibit a distinct advance in the standards and practice of the academy as compared with former years.

The annual practice cruise we think should be continued, and we recommend that such cruises be to foreign waters, as in the past two years, and in ships of modern type, sufficiently large to afford the midshipmen comfortable accommodations.

Your committee considers that the conditions obtaining in that piece of land of which the board, as a whole, has recommended the purchase are so unsanitary as to be a menace to the health of the officers and midshipmen resident at the academy; and we further recommend that Bancroft Hall be screened, in accord with modern sanitary practice.

We make no recommendation with respect to the police, it being, so far as our observation has gone, entirely satisfactory.

We commend the administration of the midshipmen's mess as under present regulations. Particularly would we emphasize the importance of maintaining this mess exclusively for midshipmen. We commend especially the energy which has established and maintains a dairy for the supplying of the midshipmen's mess with wholesome milk.

We recommend continuing the policy of promoting all branches of athletic sports on a broad and liberal basis that the high standing of the institution in this department may be sustained, and we can not urge this too strongly.

In conclusion, in the consideration of the question of discipline, its administration and general effects, it is apparent that the utmost care is exercised by those in authority to carry out the legal enactments now existing.

We urge and recommend the enactment by statute that when any midshipman shall have been dismissed, after due legal investigation, and such dismissal approved by the constituted authorities, such midshipman shall be ineligible for reappointment or restoration to the Naval Academy.

ALFRED HOLMAN,
GRAFTON ST. L. ABBOTT,
FRANK J. JONES,
ROSECRANS W. PILLSBURY,
Committee.

NO. 3.—REPORT OF COMMITTEE ON ADMISSION, DISCHARGE, STANDARD OF SCHOLARSHIP, OFFICERS, AND OFFICIALS.

(Hon. A. W. Gregg (chairman), Mr. Stuart W. Cramer, Mr. J. M. Whitham.)

Your committee offers the following recommendations:

1. That the number of officers attached to the academy should be increased; that the length of detail should be not less than three years unless sooner relieved at the discretion of the superintendent.

2. That there be a confidential clerk for the department of ordnance and gunnery, particularly on account of the fact that this department is continuously in possession of large numbers of confidential bulletins from the Bureau of Ordnance and Gunnery which must be distributed among the midshipmen and collected and returned from time to time; also because the officers of this department are detached from the academy on other duty during the summer, at which time the bulletins are collected for the following term.

3. Recognizing the value of the services of two of the civil professors and the sword master, who have no provision for their old age, but who have worked with and performed as valuable services as the officers, who are provided for, we recommend that provision be made for the said civilian professors and sword master, as emeritus professors and sword master, thereby recognizing the value of their services in the same manner as are those who are similarly situated in the various educational institutions of the country.

4. As to candidates for admission to the Naval Academy:

(*a*) That candidates should at the time of their examination for admission be between the ages of 15 and 18 years, a candidate being eligible for appointment on the day he becomes 15 and ineligible on the day he becomes 18 years of age.

(*b*) That the designation of candidates be made one year in advance of the time at which they are to be admitted, each candidate being furnished with a syllabus containing the required information, including a comprehensive outline of the subjects upon which he will be examined, accompanied by sample examination papers; and furthermore will be furnished with an outline of the first year's work in the academy, including the names of the textbooks that are being used.

(*c*) That the standard of mental requirements for admission shall remain substantially as at present, but upon application of any candidate who has not completed an examination paper within the time allotted he shall be allowed 25 per cent additional time.

(*d*) That the examination of candidates shall be held under the supervision of the Civil Service Commission at points named in the appended list (see pp. 5 and 6 of Regulations for Admission of Candidates to the Naval Academy, issued in 1911), the examination papers being prepared and furnished by the academic board and returned to same for marking.

5. As to the course of instruction:

(*a*) That the time of completion of the academic course be four years, as heretofore.

(*b*) That the present standard of excellence be maintained, but that the work be revised and simplified to meet the new conditions and requirements in consequence of the law commissioning midshipmen as ensigns upon graduation and in view of the contemplated advanced instruction in postgraduate work.

(*c*) That in order to give more time and attention to fundamental instruction during the academic period, the postgraduate courses in technical and professional subjects shall be provided for officers after three years or more of sea service.

A. W. GREGG,
STUART W. CRAMER,
JAY M. WHITHAM,
Committee.

The Board of Visitors hereby extends to Capt. John H. Gibbons, United States Navy, Superintendent of the Naval Academy, and the officers, professors, and instructors, its thanks for their uniform courtesy and valuable assistance rendered it in the performance of its duties; and the board further desires to express to Prof. Paul J. Dashiell, United States Navy, permanent secretary of the Board of Visitors, and Lieut. Fred. H. Poteet, United States Navy, aid to the president of the board, its appreciation of their courteous and constant attention.

REPORT OF THE CHIEF OF BUREAU OF YARDS AND DOCKS.

Department of the Navy,
Bureau of Yards and Docks,
Washington, D. C., October 26, 1912.

From Chief of Bureau.
To Secretary of the Navy.
Subject: Report of operations of the Bureau of Yards and Docks for the fiscal year 1912.

The value of the work done during the fiscal year 1912 from appropriations under the cognizance of this bureau aggregated $8,644,173.54, divided as follows: Public works, $6,167,596.05; maintenance of yards and stations, $1,611,182.52; repairs and preservation of navy yards, $831,106.25; contingent, $34,288.72.

The expenditures of funds under the cognizance of other bureaus and the Secretary's Office, but supervised by this bureau, were as follows: Secretary's Office, "Depots for coal," $234,556.32; "Coal and transportation," $112,317.49; "Equipment of vessels," $134,561.30; Bureau of Medicine and Surgery, $375,210.33.

The total value of the work under the supervision of this bureau done during the fiscal year amounted to $9,500,818.98. There were 62 contracts awarded during the year, involving obligations amounting to $2,344,178.05.

DRY DOCKS.

At the beginning of the fiscal year the bureau had under construction three new dry docks of the largest size, at New York, Puget Sound, and Pearl Harbor, and the lengthening of the principal dry dock at Norfolk was nearing completion. Early in the year the Norfolk dry dock was completed, and the New York dry dock has since been officially accepted, both docks now being in regular service. The Puget Sound dry dock is approaching completion, lacking only removal of contractor's cofferdam and dredging at entrance, with some installation of machinery in the pump well. The contract for the dry dock at Pearl Harbor is being modified to provide for a usable length of 1,000 feet, so that it may take any ship which can pass through the Panama Canal. Great difficulties were encountered, both at New York and Pearl Harbor. The former was met by an original design and method of construction, and the latter by careful study, experiments, and tests. Large expenditures have been made in the repair and preservation of the floating dry dock *Dewey* at Olongapo, and this dock continues to provide needed docking facilities in Philippine waters.

POWER PLANTS.

The central power plant at Puget Sound was completed during the year, and those at Mare Island and Pearl Harbor have been under active construction and are nearing completion. Plans have been prepared and contracts are being awarded for a complete central power plant at the Naval Torpedo Station, Newport, R. I. With the completion of the central power plant at Mare Island, the consolidation of power plants in all navy yards may be said to be complete.

The bureau has been giving special attention to the method of operation of power plants and has been materially aided by an exhaustive report by Stone & Webster, experts on power-plant construction and operation, on the power plant at the Boston Navy Yard.

This well-known firm was first retained in September, 1904, by the then Secretary of the Navy, who propounded certain questions to them as follows:

1. How much power is there at each yard and what proportion of it is in use? How much reserve power should there be in each yard?
2. In a general way, how does it compare in volume with the power of other industrial plants with which you are familiar?
3. What would you do with the light and power plants in the navy yards if you were operating the yards as a private enterprise, bearing in mind its military intention?
4. If the plants are consolidated, is it possible to arrange for a second unit of supply from outside sources—i. e., city supply or from private corporations?

The Secretary further asked for their general ideas on the whole subject, both as to the amount of power on hand, the amount necessary, the economy of production, the economy of its use, and any other question that might occur to them.

The plants at Portsmouth, Boston, New York, Philadelphia, Norfolk, and Charleston were visited by the experts of the firm and a report made November 15, 1904, submitting the findings as to existing conditions and recommendations for consolidations, improvements, and additions thought necessary to provide efficient and economical service.

On February 16, 1905, the department, after mature consideration, directed the Bureau of Yards and Docks to undertake the consolidation of the various plants as contemplated by the act of April 27, 1904, and the work was at once undertaken and carried along as expeditiously as conditions and funds available permitted.

During the summer of 1911 the work of consolidation of plants having been practically finished, it was deemed advisable and appropriate that an examination should be made by the same firm of experts of one of the consolidated plants to determine and report its findings, particularly upon the following points, viz:

First. Whether the plant has been designed and constructed in accordance with their previous recommendations to the department.

Second. Whether the plant is being operated in the most economical manner.

Third. If not operated in the most economical manner, in what respect.

For this purpose it was necessary to turn one of the plants over to Stone & Webster for operation for a period of 30 days. The plant at Boston was selected for the purpose and instructions were issued giving the firm possession of the plant, access to all records of its past operation, and the assistance necessary to insure a complete and unrestricted examination and a full and impartial report. In July, 1912, the report was received. It indicates that a most exhaustive examination of the multitudinous details of the plant had been made. Consideration was given to the measurement of fuel, feed water, steam consumed by the various systems, electrical output, air compressed, methods of operation in the boiler room and engine room, maintenance of boilers and stokers, pumps, economizers, engines, coal crusher, turbines, auxiliaries, organization of personnel, accounting system, and other details and specific report and recommendation made as to each. The report has been made the subject of careful study by experts in the department and steps taken to correct the deficiencies found and to provide further improvements designed to secure additional economies and higher efficiency. Copies of the report have been prepared and furnished to the officers in charge of the maintenance and operation of the plants at the various navy yards and stations for consideration of the various points brought out by the experts and the adoption of the improved methods and apparatus recommended by them wherever the local conditions require or permit. The output and cost of heat, light, and power at each plant is being carefully calculated and recorded and each officer in charge is being advised periodically of the results attained at each other plant so that apparent excesses may be investigated and the proper remedy applied.

PEARL HARBOR, HAWAII.

A 35-foot ship channel has been completed from the station to the sea. The six shop buildings will be ready to receive machinery in December. The power-plant building is practically closed in, and the plant itself will be in partial operation before the end of the fiscal year. Storehouse, administration building, marine barracks and quarters, and six sets of navy-yard quarters are under contract. Plans for the hospital buildings are in preparation, and work will be advertised shortly. Outside power distribution mains, conduits, roads, and other general yard improvements are actively under way. Plans are in preparation for the lumber storehouse, paint and rigging loft, pattern shop, storehouses, and latrine, authorized by the act of August 22, 1912. This act authorized an increase in the usable length of the dry dock to 1,000 feet. Supplemental agreement covering this change is ready for signature, and the contractors are proceeding with the work. Work is in progress on a concrete basin, with wharf to store 100,000 tons of coal and designed for future extension to double this capacity.

GUANTANAMO REPAIR STATION.

Appropriations for emergency repair station and for magazines were made by act of March 4, 1911. Allotments have also been made from the appropriation for depots for coal for 30,000-ton fuel-oil and 250-ton gasoline station. Work has been actively prosecuted during the past year, and at the present time there have been completed the station wharf, the fuel-oil wharf, foundations for several of the oil tanks, and 60 per cent of the filling in of the site. Steelwork for all the shop buildings has been delivered, and the erection is proceeding rapidly. Power-plant equipment is on the ground, and the foundations for machinery are being placed. Practically all the materials for the work have been sent from the United States, and the larger portion has already been delivered. Two fuel-oil tanks, water tank, and gasoline tank have been shipped, and the pipe line from the oil tanks to the wharf is now being laid. The remaining fuel-oil tanks have been contracted for. All the materials for construction work at the magazines are being assembled, but active work on the site has not commenced, pending the department's decision as to possible change in location. Investigations are being made on possible sources of water supply for station in case it should be further developed, and borings have been taken and test piles driven on the site of a possible dry dock. The location of this station with respect to material and labor markets has made it extremely difficult to carry on construction work with rapidity. Every effort is being made, however, to secure the completion of this station by the end of the present fiscal year.

NAVY YARDS.

In addition to the particular classes of work already mentioned, rapid progress has been made on a large number of miscellaneous items of public works at various yards and stations. Most important of these have been the water-front improvements at New York, Philadelphia, Norfolk, and Key West, and the foundry at Washington.

HOSPITALS.

Work has been carried on during the year on the three large hospitals of practically identical construction at Portsmouth, Chelsea, Mass., and Newport. Work under the contract for the three buildings is practically complete. There remain to be constructed power houses, quarters for officers and attendants, and other detached buildings. Plans for a general hospital at Pearl Harbor have been developed, and the work is nearly ready for advertisement. Miscellaneous small improvements have been carried out at various other stations.

MARINE BARRACKS AND QUARTERS.

Plans are in preparation for marine barracks, Philadelphia, and marine officers' quarters have been constructed at Philadelphia and Norfolk on plans prepared at the bureau. Minor improvements have been carried out at various other stations. Marine barracks and quarters for Pearl Harbor are under contract.

MAGAZINES.

Construction work is either under way or has been completed at nine separate stations, aggregating over $260,000. In addition, plans have been prepared or construction has been started for additional work aggregating over $390,000.

150-TON FLOATING CRANES.

The act of March 4, 1911, authorized two floating cranes of 150 tons capacity for Boston and Pearl Harbor, the limit of cost of the two being $660,000. The pontoons have been completed, and the erection of the superstructure and machinery is proceeding satisfactorily.

RADIO STATIONS.

The station at Arlington, Va., including one 600-foot tower and two 450-foot towers and several buildings, has been completed. Proposals will shortly be opened for a wireless station at Guantanamo, Cuba.

FUEL OIL AND GASOLINE STORAGE PLANTS.

Fuel-oil stations have been completed at Melville, R. I., Norfolk, Charleston, and Key West. The oil station at Guantanamo is in process of erection. Extensions have been authorized at these places, and active construction work is under way. A gasoline tank is also being erected at Boston. A 25,000-ton plant has been designed for Pearl Harbor, and the tanks and other material for 5,000 tons of fuel oil and 250 tons of gasoline are under contract.

COAL-STORAGE PLANTS.

The coal-storage plant at Tiburon, Cal., has been completed. The bureau has made designs for coaling plants of 200,000-ton capacity at Boston, Norfolk, and Pearl Harbor. Funds have been allotted to commence the construction of the plant at Pearl Harbor, and work is being actively prosecuted.

H. R. STANFORD.

REPORT OF THE CHIEF OF THE BUREAU OF NAVIGATION.

Department of the Navy,
Bureau of Navigation,
Washington, D. C., November 6, 1912.

From: Chief of Bureau of Navigation
To: The Secretary of the Navy.

Rear Admiral R. F. Nicholson, United States Navy, was chief of the Bureau of Navigation for the first six months of the fiscal year 1912, and was relieved by the undersigned on January first.

The following statement of the work of the bureau, together with certain recommendations, is submitted.

WORK OF THE BUREAU.

As the duties of the bureau are almost entirely connected with personnel, the amount of work performed is proportioned to the number of officers and enlisted men in the Navy. The following table gives a comparison of the strength of the personnel of the Navy, and the clerical force for the years 1901 and 1912:

	1901	1912	Increase.	Per cent of increase.
	Number.	*Number.*	*Number.*	
Officers	1,783	3,076	1,293	72
Enlisted men	20,000	51,500	31,500	157
Total	21,783	54,576	32,798	150
Clerical force	50	72	22	44

During the fiscal years 1900, 1901, and 1902 a yearly average of approximately 287,764 papers were handled in the bureau; during the years 1910, 1911, and 1912 approximately a yearly average of 777,211 papers were handled, or an increase of 170 per cent during a period of 10 years.

REDUCTION OF PAPER WORK.

The bureau is endeavoring to reduce its paper work to a minimum. The new form of correspondence and the discontinuance of press copying has resulted in a saving of time. The making of individual requests for duty by enlisted men has been prohibited, and this alone will result in reducing the number of papers handled each year by about 20,000. The bureau now has an officer who is devoting practically his entire time to improvements in its methods, and it hopes to effect changes which will materially reduce the amount of work required to be performed.

Wherever suitable, the bureau has adopted printed form letters with the name of the chief of bureau printed thereon, which are initialed by the chief of the division before mailing, no copies being retained or recorded. In order to avoid the handling and unnecessary addressing of a large number of envelopes, post cards have been adopted for acknowledgment of certain documents, such as muster rolls, log books, pension cases, etc. The use of window envelopes on certain classes of mail has resulted in saving the time required for the typewriters to address about 100 envelopes a day.

With a view of lessening work not only in the bureau but in the service generally, certain returns have been discontinued, such as returns enumerating and forwarding changes in rating, transfer slips, etc. Four monthly returns from the Naval Home have been discontinued, as the information they contained was either useless or already in the bureau and rarely used. The stub of each transportation request issued, which was formerly required to be recorded, not only in this bureau, but also in the Bureau of Supplies and Accounts, has been discontinued, and a weekly report substituted. This weekly report is prepared in duplicate on a typewriter, and a copy is furnished each bureau, where it is filed in loose-leaf ledger for reference, and not recorded, as heretofore.

The printing of the daily "Orders to officers" and "Movements of vessels" on one sheet has eliminated the daily mailing of 345 papers; and the printing of general orders twice each month and including as many as possible on one sheet has reduced the work of mailing them by at least 50 per cent.

Notwithstanding the elimination of some correspondence it will not be possible to reduce the work sufficiently for the present clerical force to properly take care of it and the bureau has recommended that its clerical force be increased by the addition of three clerks.

CLERICAL FORCE.

In proportion to the increase in volume of the business transacted by this bureau, its clerical force has not been increased nor received due consideration. During the first nine months of this year only six employees were granted any sick leave, the total of such leave being 102 days, or an average of 1.3 days sick leave for each clerk in the bureau during this period. During this same period of 9 months the employees have worked 547 days overtime, or an average of 7 days overtime for each employee in the bureau. Almost all of this overtime has been performed voluntarily by the employees, in an effort to keep the work assigned them up to date; even so, the work has suffered in quality, owing to the rush necessary to get it out on time with inadequate clerical force. The bureau for the same reason has been unable to keep certain desirable records.

While the salaries of employees of commercial establishments, and in fact the salaries in all other walks of life, have been increased in recent years, the salaries of the employees of this bureau, with one exception, have not been increased. The following table shows a decrease in the average rate of pay of the clerical force in the bureau since 1883:

Year.	Average salary.
1884	$1,328
1890	1,380
1912	1,140

LEGISLATION PASSED LAST SESSION AFFECTING PERSONNEL.

The Pay Corps of the Navy was increased by 10 additional paymasters and 20 additional passed assistant and assistant paymasters.

Sections 8 and 9 of the personnel act approved March 3, 1899, were amended so as to require that officers retiring under the provisions of those sections will be retired with the rank and three-fourths the sea pay of the grade from which retired.

The statute authorizing the payment of an amount equal to six months' pay to the beneficiaries of officers and enlisted men was amended so as to limit the payment to the widows or other dependent relatives designated by the officers, payment to be made upon the death from wounds or diseases not the result of their own misconduct.

The statute which gave officers who had served as chiefs of bureaus after 30 years' service the rank, title, and emoluments of a chief of bureau while on the active list of the Navy, was repealed.

Authority was granted for the employment on active duty, at their own request, of retired officers. The proviso was made that no greater pay and allowances than those of a lieutenant should be received by a retired officer assigned to active duty, unless the pay and allowances of a retired officer so ordered to duty exceed those of a lieutenant, in which case he shall receive his retired pay only.

A medical reserve corps was authorized for the Navy under the same general provisions of law as apply to the Medical Reserve Corps of the Army.

A dental corps was authorized, to consist of 30 assistant dental surgeons. Appointees are required to be between the ages of 24 and 32 years, graduates of established medical or dental colleges, and to pass a prescribed examination. After serving under acting appointments for three years, they are examined and, if qualified, are regularly commissioned.

The promotion of pharmacists to the grade of chief pharmacists after six years' service and upon passing an examination was authorized, the chief pharmacists to receive the same rank, pay, and allowances as other chief warrant officers.

The course of instruction at the Naval Academy was changed from six years to four years, the midshipmen being appointed ensigns immediately upon graduation at the expiration of the four-year course.

Section 1505 of the Revised Statutes was amended so as to provide that officers of the Navy below the rank of commander who, upon examination for promotion are not found professionally qualified, shall be suspended from promotion for a period of six months and shall lose numbers equal to the average six months' rate of promotion for the five years preceding. Should an officer fail upon reexamination, he shall be dropped from the service with not more than one year's pay.

The number of enlisted men in the Navy was increased by 4,000 men, making the total enlisted strength 51,500 men.

Authority was granted for extending the enlistment of enlisted men under regulations prescribed by the department. An enlistment may be extended for one, two, three, or four years, as desired by the man, and upon such extension he will receive the same pay and allowances as though regularly discharged and immediately reenlisted.

Authority was also granted for discharging an enlisted man any time within three months before the expiration of his enlistment.

A clause in the District of Columbia appropriation act prohibits the expenditure for membership fees or dues of any officer or employee of the United States or the District of Columbia in any society or association unless such expenditure is specifically authorized. A clause, however, in the legislative, executive, and judicial act suspends these requirements for the fiscal year 1913.

NAVAL REVIEWS.

A comparison of the mobilization of the United States Atlantic Fleet at New York from October 30 to November 2, 1911, with that held October 12 to 15, 1912, shows a marked increase in naval force in one year.

	Comparison.		Increase.
	1911	1912	
THE FLEET.			
Battleships	24	31	7
Armored cruisers	2	4	2
Smaller vessels	72	88	16
Displacement (tons)	576,634	720,486	148,852
PERSONNEL.			
Officers	1,124	1,378	254
Enlisted men	25,378	28,031	2,653

The above statement for 1912 includes 78 officers and 567 men of the various Naval Militia organizations who were enlisted and distributed among the various vessels of the Atlantic Reserve Fleet. In addition, 30 officers and 280 men of the first, second, and third battalions, New York State Militia were on board certain vessels of the Atlantic Fleet, but were not regularly enlisted as the other militia organizations were.

The following State Naval Militia vessels, manned by their own officers and men, also participated in the review at New York:

State.	Vessel.	Officers.	Men.
Connecticut	Machias	17	88
New Jersey	Marietta	10	69
Do	Vixen	4	51
New York	Wasp	6	29
Do	Gloucester	11	50
Rhode Island	Aileen	5	24
Total		53	311

NAVAL MILITIA EMPLOYMENT.

Naval Militia organizations of a number of States volunteered for active service in the fleet during the naval review at New York in October. The following State militia organizations were represented and, as a rule, were detailed to vessels of the reserve fleet:

State organization.	Officers.	Men.	Vessel to which assigned.
Chicago, Ill	23	141	Montana.
Baltimore, Md	6	16	Birmingham.
Cleveland, Ohio	6	33	Indiana.
Toledo, Ohio	5	31	Massachusetts.
Duluth, Minn	4	45	Wisconsin.
Detroit, Mich	12	111	Tennessee.
Hancock, Mich	8	55	Kearsarge.
Erie, Pa	4	30	Chester.
Philadelphia, Pa	3	39	Kentucky.
Ashland, Wis	4	23	Iowa.
District of Columbia	3	43	Maine.
Total	73	567	

The officers and men were regularly enlisted, with special proviso that they were to be discharged by special order of the Secretary of the Navy upon completion of the review and return of the reserve fleet to the Philadelphia Navy Yard.

The Washington, Baltimore, and Chicago organizations joined the fleet at Philadelphia and remained on board until the reserve fleet's return to the Philadelphia yard; the other militia organizations joined the fleet at New York and returned to the Philadelphia yard, where they were discharged.

In addition to those organizations the First, Second, and Third Battalions of the New York Naval Militia took part in the review and were detailed to ships of the active fleet at New York as below:

Organization.	Officers.	Men.	Vessel to which assigned.
First Battalion, New York City	2	21	Washington.
Second Battalion, Brooklyn, N. Y	10	100	Missouri.
Third Battalion, Buffalo, Rochester, and Dunkirk	5	49	Utah.
	6	37	Florida.
	4	37	Washington.
	3	36	Delaware.
Total	30	280	

These officers and men were not regularly enlisted, their travel expenses and subsistence being paid by the State of New York.

The officers and men of the militia were assigned to duties on board according to their rank or rating in the militia. The watch officers took regular watch duty with the officers of the service, and the men of the militia with the enlisted personnel. They assisted materially in the movement of the reserve ships, which were short handed, having only their reserve crews on board. The case of the *Montana* is an example of the aid given by the militiamen, inasmuch as she developed a speed of 18½ knots on half boiler power on the trip to New York; and during the return trip to Philadelphia all the vessels engaged in a steaming competition with excellent results. The highest praise was given to the militiamen by the captains of their ships for their seamanlike conduct and bearing.

DETAIL OF OFFICERS.

The bureau has adopted a system of rotation in duty at sea, so that officers will be given details in each of the fleets and in small craft, as well as in capital ships, during their careers. In making out the schedule of changes to take effect during the year, each officer's record is studied and his detail is governed to a great extent by the nature of his previous sea service in connection with his reports of fitness. It is hoped that the effect of this system will be that duty of all kinds and on all stations will be shared alike by all officers.

OFFICERS' AND ENLISTED MEN'S QUALIFICATIONS.

A card system is now going into effect by which all professional qualifications and preferences for duty of any officer can be instantly determined, and by which the names of all officers having desired qualifications or preference can be instantly determined.

The bureau is also putting into effect a more complete record of enlisted men qualified in the various duties which will enable it to make details to these duties in accordance with the needs of the service and the qualifications of the men.

This need has been shown by the fact that men specially trained in torpedoes, radio work, and other technical branches are often lost track of and have been found assigned to general duties.

CIVIL EMPLOYMENT OF RETIRED OFFICERS.

Attention is invited to the recommendation in last year's report of the Secretary for the removal of the restriction on the civil employment of officers which has been operative since June 10, 1896. This restriction was originally made in the early days of steel and armor manufacture in this country, when it was thought that the employment of officers by such concerns might have an influence on contracts between their employers and the Government. This prohibition applies to employment in any concern which has a contract with the Government, so that little employment is possible for retired officers. The restriction works especial hardship on naval and marine officers, since it does not apply to officers of other branches of the Government.

Experience abroad is that a distinct advantage to the country results from the employment of retired officers by private firms—a practice which utilizes the skill which these officers have acquired in the Government service, while at the same time the Government has a legal control over them, guaranteeing against improper action on their part.

PHYSICAL EXERCISE.

Regular physical exercise was first prescribed in a general order dated January 4, 1909. This exercise consisted of a walk of 50 miles in 3 consecutive days; a ride on horseback of 90 miles in 3 consecutive days or a bicycle ride of 100 miles in 3 consecutive days. It continued through the years 1909 and 1910. For the calendar year 1911 the exercise was changed to a quarterly walk of 25 miles in 2 consecutive days, 12½ miles each day, and for 1912 it was changed to a monthly walk of 10 miles in 1 day, in not more than 4 nor less than 3 consecutive hours. Within the tropics, where the temperature is 80° Fahrenheit or above, the distances walked and the time limits are two-thirds of those under normal conditions.

Before taking the first monthly exercise in each year each officer is examined by a board of medical officers to determine whether he is physically fit to perform all the active duties of his grade and whether the prescribed exercises may be taken without danger to him. No one is excused from the exercise except for physical disability.

PAYMASTERS' CLERKS.

It is recommended that a permanent corps of paymasters' clerks with warrant rank be established. The present body of clerks is constantly changing, as every time a paymaster is detached from his duty the appointment of his clerk (in many cases, two clerks) is revoked and the latter is ordered to his home. After arrival home he may be reappointed with the same or some other paymaster or he may never be reappointed. This leads to much confusion, increases the charge to the travel appropriation, and, it is believed, reduces very much the efficiency of the clerks themselves on account of the lack of stability in their positions. If belonging to a permanent corps, the clerks would perform their quota of sea and shore duty like other warrant officers, irrespective of the paymaster with whom they may serve, their details having no relation to that of the paymasters. The clerks should be bonded for a small sum.

Congress has provided for a retired list for paymasters' clerks, but under the present system its benefit may be lost entirely by able clerks long in the service if they happen not to be employed at the time some disabling accident or sickness may occur to them or on the day of reaching the retirement age. It would appear also that Congress contemplated a permanency of tenure in establishing a retired list.

Should a permanent corps be established, it would afford a line of advancement for the yeomen class in the Navy, which is now not eligible to promotion to warrant grade. Such a scheme of advancement could readily be effected by having promotions to the grade of paymasters' clerks, similar to that of the grade of carpenter in the Navy, open to civilians and yeomen by competitive examinations. This would add greatly to the efficiency of the yeomen class.

CONDITION OF OFFICERS' LIST.

There is a continued shortage of line officers in the fleet, due to the increased number of vessels in active commission and in reserve.

In 1915–16 there will be officers enough to man the fleet, provided its size is no greater than at present; but the distribution of these officers through the grades of the line, as authorized by statute, will not be properly proportioned to the duties and total numbers. Unless the higher grades are increased, it will cause great stagnation in promotion. Under the operation of existing law there would be 1,921 line officers by July, 1916. How this number should be distributed in the various grades to meet the requirements of the service and how the law now in force would distribute them is shown, comparatively, as follows:

	Above lieutenant.	Senior lieutenants.	Junior lieutenants and ensigns.
To meet service requirements	566	738	617
By existing law	400	350	1,171

Of the 1,171 officers in the lowest two grades over 670 would be junior lieutenants, and at the rate of promotion now provided an officer would be 16 years in that grade, and could not become a commander under 58 years of age, leaving only 4 years before retirement for service as commander, captain, and flag officer. Needless to say this would mean a condition far more intolerable than that from which the personnel act of 1899 gave relief.

OUTPUT OF NAVAL ACADEMY.

The class of midshipmen entering this year will number about 265, or about 20 more than last year, making a total of about 770 at the Naval Academy. Next year the reapportionment of congressional districts in many States will add nearly 100 appointments, and it is expected that the entering class will number about 300, bringing the total nearly to the full capacity of the present accommodations for midshipmen.

The existing law governing appointments, however, provides that after June 30, 1913, each Senator and Representative shall have only a single appointment instead of two; so that the class entering in 1914, succeeding one of the largest on record, will be unusually small. Such fluctuations do not make for good administration, either of the Naval Academy or of the Navy at large. But the important consideration here is to safeguard the Navy's future supply of commissioned officers in adequate numbers, and to do this it is necessary to have the same number of midshipmen allowed.

No probable requirement is now foreseen for more officers than could be supplied by the Naval Academy without enlarging existing accommodations. For the next few years the numbers graduated will suffice for vacancies and necessary increase, including the staff corps and the Marine Corps. If there were a decrease in the size of classes, it could only result in impaired efficiency for lack of sufficient officers.

The proposed personnel bill now before Congress contains provisions fixing the entrance ages for midshipmen at 15 to 18 years, and continuing the present number of appointments.

In connection with the age limits special attention was given in revising the Naval Academy curriculum to adjust the entrance examination so that the age limits could be lowered without hardship to the candidates. The aim was to make the entrance requirements and first year's work so conform to average school conditions outside that any boy of 15 to 18 who has been a faithful student may not feel the need of a course at a special preparatory school.

MIDSHIPMEN'S PRACTICE CRUISE.

The two-year cruise for graduate midshipmen was abolished by act of Congress March 7, 1912, making a radical change necessary in the form of practice cruise for the midshipmen during the summer. This year all members of the third class were sent to sea in one battleship, fitted out especially as a schoolship. This was but little different from former practice. The radical departure consisted in dividing the first and second class men among the battleships of the Atlantic Fleet, so many of each class to a ship. The second-class men were given duties and instruction mainly of a technical nature, in the engine and fire rooms and the electrical department. The first-class men had principally nautical and military duties and instruction. In addition, both classes were given work in navigation, radiotelegraphy, gunnery, and boating.

By thus dividing the midshipmen in small groups, and concentrating their attention on the professional branches for a whole cruise, the instruction imparted is much more thorough and practical than it could be in a schoolship, where less opportunity for practice can be given to individuals. The greatest advantage, however, is derived from the fact that their training is now given under normal conditions in the fleet, the regular fleet routine being followed instead of one made especially for use on board a schoolship. The conditions are such as to impress upon them a sense of their being officers with responsibilities. Because of this the practice cruise work will be given more weight than heretofore in determining class standing, which will encourage all midshipmen to serious work and enable those of good practical aptitude, but only average scholastic ability, to gain higher standing than they could win by studies alone.

The final result will be that on graduation as ensigns these young officers will go aboard ship better prepared and with more confidence than if their previous sea training had been in Naval Academy schoolships. Reports so far received are very favorable to the new plan.

ADMINISTRATION OF DISCIPLINE AT NAVAL ACADEMY.

Heretofore for every offense, trifling or serious, a demerit mark has been placed on the midshipman's record, which affects his standing throughout his entire career. There is, however, an inequality among the first-year midshipmen, due to different age, experience, and preparation, which makes it advisable not to count the first years' conduct record in making up the final merit for the class after the four-year course. During the first year offenses committed will be punished by deprivation of privileges, extra drill, etc. Incorrigible behavior will result in dismissal. Demerits will still be given during this period as a temporary record, and the limit allowed in the year will be the same, but the members of the class who keep within the limit will begin the second year on an equal footing. The first year will thus be one of preliminary training in discipline and in forming the habits of a military mode of life. Each of the other three classes at the academy will in turn be held to stricter accountability, as their longer period of service at the academy should make them more reliable in personal conduct. Such an increasing standard is not a new feature, but the successive differences are to be made greater than before.

Offenses have been classified under three heads, namely: (*a*) Offenses due to youthful ignorance, inexperience, or undevelopment of habits; (*b*) those due to excess animal spirits and undeveloped responsibility; and (c) those of willfulness, indifference, or indicating a defective sense of honor, morals, or responsibility.

The scale of demerits has been revised and also the value of each demerit when used as a punishment to cause loss of standing. Except for special offenses where extenuating circumstances have caused demerits to be awarded in place of dismissal, the maximum number awarded for a single offense has been reduced to 50, but the weights have been increased so as to make a demerit cost more than formerly. Minor offenses will reap summary and appropriate punishment, providing the limit of demerits for one year is not exceeded, but for a serious offense the penalty will reduce class standing.

Finally, it is provided that a midshipman may redeem misconduct by exceptionally good behavior for a protracted period. This will not apply to first-class men who will be expected to have learned the value of good behavior.

CHANGES IN THE NAVAL ACADEMY CURRICULUM.

The examination for entrance to the Naval Academy has been changed by eliminating the subject of general history and allowing more examination time in all subjects. The first year's work will be more elementary, in order to strengthen the groundwork for the ensuing years; more time is given to English studies and foreign languages, and the more theoretical and advanced professional features have been eliminated or abridged. Spanish becomes the paramount language, with French next, and the Berlitz system of teaching is adopted. In general, the changes will readjust the early part of the course more nearly to average school conditions throughout the country and make the whole course broader and more thorough as a general education, and more practical in its professional application. Professional instruction is confined to the requirements of the grade of ensign, leaving the higher and special qualifications to be acquired in service and in post-graduate courses.

WAR COLLEGE.

This year it was found possible to order a larger class than usual to the War College summer course, and also for the long course. Next year it is hoped to enlarge the number taking the long course.

SPECIAL ORDNANCE INSTRUCTION.

Nine officers took the special course in ordnance instruction during the past year. Two received instruction at George Washington University in the chemistry of explosives, while the remainder took up the various forms of ordnance work on shore. Their study has been carried on with gratifying results.

SCHOOL OF MARINE ENGINEERING.

Seventeen officers attended this school during the year. During the summer the members of the class that completed the first year's course visited a number of manufacturing plants where opportunities were courteously afforded them to study the methods used. The results of these visits were of great benefit, not only in professional information obtained, but in the contact they afforded with well-known engineers and professional men. The class that completed the whole course was sent, in preparation for sea duty, to the navy yard, New York, and made a close study of the methods at that yard, the organization, and the relation between the yard and vessels undergoing repair.

POST GRADUATE COURSES.

The School of Marine Engineering, established at Annapolis in 1909, has been merged into a post-graduate department of the Naval Academy, recently constituted as a part of the academy, but entirely separate from the midshipmen's course and independent of the academic board. The head of the post-graduate department controls and conducts its executive and administrative work, under the government of an executive council, composed of the Superintendent of the Naval Academy, the head of the post-graduate department, the head of the academic departments of marine engineering and naval construction, ordnance and gunnery, electrical engineering, mathematics and mechanics, and physics and chemistry, the head of the engineering experiment station, a naval constructor, and a civil engineer.

Assignments of officers to these courses will, as a rule, be made after three years' service at sea and qualifying for promotion to junior lieutenant. The student officers will begin with four months' closely regulated and directed work at Annapolis in order to refresh and strengthen the theoretical knowledge previously acquired. Following this will be a second four months of preliminary specializing, though not necessarily at Annapolis, at the end of which it will be determined whether an officer's work justifies his continuing. If so, he will then pursue a chosen line of specializing for about 16 months more or longer.

The interest and cooperation of educators and experts in civil life will be especially sought in order that the students and the Navy generally may be brought into closer touch with outside progress in science and technology.

THE NAVAL INSTITUTE.

The published proceedings of the Naval Institute furnish much professional and historical information, and help officers to keep in touch with naval progress. They also spread a wider knowledge of naval affairs among the large number of civilian members of the institute. The institute is to be congratulated upon its long career of usefulness and upon the high standard which it has maintained.

AMENDMENT OF ENLISTMENT LAWS.

Prior to the approval of the naval appropriation act for the fiscal year 1912 men or boys could be enlisted for the Navy only for terms of four years or minority, but this act now provides that a man may voluntarily extend his enlistment to make an unbroken term of service of five, six, seven, or eight years, and further extensions could be made by reenlisting for four years, and again extending that term if desired. At the same time the act preserves to the enlisted men all their rights and benefits under previously existing law, particularly those dependent upon honorable discharge. This new law will add no expense either now or in the future, but on the contrary will result in a decrease. As soon as the working of the law becomes well understood many will take advantage of it to serve an extra year or two, and probably many who would be unwilling to reenlist for four years would nevertheless extend their term for one or two years, and after serving this period would again choose to extend their term for one or two years more.

The department retains control over these extensions, so that only desirable men are allowed to obtain the benefit. In this way the services of more trained men will be retained than by the recent rigid rule of none but four-year enlistments. From men who extend enlistment the best can be selected for petty officers of the higher ratings, thus encouraging further extensions and saving a larger proportion of trained men to the service. This last, in fact, is the principal advantage of the new provisions of law.

The new law further authorizes the discharge of men whose terms of enlistment are almost completed when the remaining period of service is so short as not to be of use to the Government. This will be without prejudice to the rights of the enlisted man. The law obviates the necessity of having a considerable number of men on board receiving ships waiting for discharge, without rendering adequate return for their pay.

Economy under the provisions of this law will result outright in certain expenditures. As the new features grow in favor considerable reductions in the expenses for recruiting, transportation of recruits, outfits on first enlistment, and training of recruits can be expected.

DEMANDS UPON THE ENLISTED PERSONNEL.

This has been the first year in which the Atlantic Fleet has been kept to its quota of 21 battleships in full commission. This, together with the organization of the Atlantic and Pacific Reserve Fleets, has made unusual demands on the enlisted personnel, and it was necessary to ask for an addition of 4,000 men to meet them. These will man the active fleet and give the reserve ships between one-third and one-fourth crews, according to the established plan approved by the department on May 1, 1912.

But already changes have been made in this plan, the *Tacoma*, *Des Moines*, and *Denver* having been placed in full commission—the *Cleveland* also for about two months—and the first group of destroyers has been kept in full commission. These demands, due to various causes, have resulted in making the active and reserve fleets short from 10 to 15 per cent of their allowed complements.

With this increased need for men came a summer of exceptional prosperity when recruiting slacked up, and there were heavy discharges of men; during July and August approximately 3,200 discharges.

In the past years the records show that from 2,000 to 3,000 men have been on general detail on the various receiving ships, available for service in case of emergency and to fill vacancies that normally occur on board cruising vessels. This year, however, the number has been considerably reduced, there seldom being as many as 500 men altogether available on all the receiving ships, so that when urgent need for putting ships in commission arose it was necessary to take men from vessels of the active fleet to fill these vacancies.

INCREASE IN THE ENLISTED PERSONNEL.

The figures furnished to the last Congress showed that a total of 51,500 enlisted men would be sufficient to man the active fleet and vessels in reserve as contemplated by the department's program, which was to become effective April 1, 1912.

The department has so far altered the number of ships in active service and in reserve as to make an additional 1,000 enlisted men necessary. The necessity of having cruisers and gunboats in the West Indies and Central American waters has made demands upon the enlisted personnel which were not contemplated, and as it appears that these conditions are liable to arise at any time, there should be a sufficient number of men in the service to man the vessels properly.

TRAINING OF ENLISTED PERSONNEL.

The training of enlisted personnel at the several training stations has been conducted under the direction of Capt. C. A. Gove, who relieved Admiral C. B. T. Moore on March 25, 1912, at San Francisco; Capt. W. F. Fullam at the Great Lakes Training Station; Capt. J. Q. Quimby at Norfolk, and Commander J. H. Dayton at Newport. Gratifying results have been obtained at the several stations, reflecting credit on the officers in command. Reports from the fleet on the product of the stations have attested to the efforts and care taken in training the recruits during the short period of their stay at the stations. The absence of any serious outbreaks of contagious or infectious diseases among the large number of men, coming from many sections of the country, is proof of the care and supervision in sanitary matters, which is an important feature of the work.

Due to the need for keeping the cost of transportation within the appropriation, it has been necessary to keep a slightly larger number of apprentice seamen at the two Atlantic coast stations than at the others. This is partly due to the decrease in enlistments at the recruiting stations in the Middle West during the time of harvesting, which has little effect on the Atlantic coast.

The musicians' classes at Norfolk, Newport, and San Francisco have supplied the service with musicians with some difficulty. The largest number under instruction is at Norfolk, where the class has been at times as many as a hundred.

The commissary schools at Newport and the training station, San Francisco, have furnished proficient commissary stewards, cooks, and bakers. Instruction in the duties of commissary stewards has been given ship's cooks to enable them to perform such duty in smaller vessels, or upon occasion of a vacancy or absence of a commissary steward on board a larger ship. Men from these schools have assisted at expositions where the Navy had an exhibit of ship's galley on board ship.

The artificer's class at Norfolk has afforded possibility of advancement in rating to men who have shown aptitude for mechanical work, and special training of men enlisted in mechanical branches. The relatively lower pay of carpenter's mates has caused some difficulty in filling this rate, but the output, both in numbers and qualifications, has been very good.

The schools for training electricians are located at New York and Mare Island. The establishment of the separate branch of electricians (radio) has been followed with an improved and lengthened special course in this branch, from which no graduates have yet been turned out. These measures will shortly relieve the demand for better radio operators. This change also allows more extended instruction in general electricity to be given. Separate examinations for gunners for electricity and gunners for ordnance now afford expert electricians an opportunity to compete on an equal footing with trained gunners' mates for the grade of gunner. This will deter competent chief electricians from accepting favorable offers of civilian employment upon the completion of a term of service which has made them proficient in electricity. Commander G. F. Cooper, lately in charge of the electrical class at New York, was of great assistance in reorganizing the method of instruction of the electrical classes and standardizing the course.

The machinists' mates' school at Charleston, S. C., has absorbed the similar school at Norfolk, which was discontinued April, 1912. It is now on a good running basis and graduated its first class of 62 men in August, 1912. Thirty-eight States were represented in this class. Its equipment consists of lathes, planers, shapers, drill press, milling machines, and boring mills with machinist, coppersmith, and tinning benches. The main engines of the *Ericsson* have been taken out bodily and set up on reenforced concrete foundation. The course is divided into four periods of four months each of practical work, with lectures at night in theoretical work. A nucleus of a technical library has been started. The need for this school has been urgent; and it is believed that the men turned out will meet the demand satisfactorily.

PHYSICAL TRAINING.

A scientific system of physical training, developed along lines successful abroad and in this country, has been established satisfactorily at the Naval Academy. From there it will be spread throughout the service, to replace the existing "physical drill," which, being more in the nature of exercise than training, leaves much to be desired. The new system will make for an improved habit of attention and alertness, as well as greater strength and activity, and will go far toward promoting team work in the crew of a ship. When established throughout the Navy, much improvement may be expected in physique and morale.

Swimming has been made a special feature. This applies to both officers and men in the fleet, as well as to midshipmen, whose diplomas of graduation are withheld until they fully qualify.

The physical training standard will be set at the Naval Academy, where all midshipmen will hereafter undergo a four-year course in it. Young officers will be the principal instructors afloat; but in order to provide qualified assistants, especially for the preliminary work and for the several training stations, 20 petty officers will be sent to Annapolis two or three times a year, making a class for a four-month training course. Surg. J. A. Murphy, who had much to do with introducing the system successfully at Annapolis, is now at the Newport Training Station, and later will go to the training station on the Great Lakes. By the time this is accomplished, a class of midshipmen will have been graduated and commissioned, well qualified by two years' training to be physical instructors in the fleet.

SERVICE RECORDS OF ENLISTED MEN.

Efforts are being made to standardize the markings of service records of enlisted men. There have been no established rules as to how these marks should be determined, consequently they have varied according to the policy on board the various vessels and at the different stations of the Navy, resulting in unequal marks for practically the same class of service. By establishing a standard method of marking throughout the service, an improvement will follow in the selection of men for promotion to the higher ratings. The necessity for a standard has also been felt by commanding officers in the awarding of discharges. The adopted method will insure more uniformity in granting honorable and ordinary discharges, a matter of great importance to the man, as his efforts to get employment in civil life are often determined by the character of a discharge.

ENLISTED MEN'S RECREATION ROOMS.

Attention is invited to the need for amusement and recreation facilities for enlisted men at navy yards and stations. At any of our large home yards there are not infrequently 2,000 men or possibly many more. No diversion or form of indoor amusement is offered them except those that can be found in the city with its temptations. If reading rooms and wholesome amusements in a suitable building, under proper supervision and regulations, were established, comfort and contentment would be much increased, and many forms of temptation would be avoided. The result would benefit the service.

DESERTIONS.

The efforts made throughout the service to decrease the number of desertions have had good results. During the year the percentage of desertions was 3.52 as against 4.16 for the year previous, showing a gratifying decrease. The cause for this decrease may be accounted for—

1. By the directions of the bureau that only men who are of a high standard mentally, morally, and physically be enlisted; by requiring some evidence of good character before enlistment.
2. By requesting the parents or guardians of the newly enlisted man to encourage him to remain in the service.

3. By authorizing the early discharge of the undesirable and inapt, and those who have good cause for desiring discharge. The bureau believes that many desertions have occurred in the past because men have had family troubles or distress and have not been able to secure a release.

4. By the capture and speedy punishment of deserters.

Endeavor will be made to secure a spirit of competition on the various vessels in regard to reducing the amount of desertion and leave breaking, increasing the esprit de corps, and encouraging the officers and men to take greater interest in a small number of desertions on board their own ship. It is believed that this will lead to further satisfactory decrease in the percentage of desertions.

Below is a table showing the percentage of desertions for the years ending June 30, 1904, to June 30, 1912, inclusive:

Percentage of desertions for previous fiscal years.

Years.	Percentage.	Years.	Percentage.
1904	6.27	1909	5.50
1905	7.86	1910	4.77
1906	9.04	1911	4.16
1907	9	1912	3.52
1908	9		

PENSIONS OF INMATES OF NAVAL HOMES.

The bureau renews its recommendation made last year that inmates of naval homes be placed on the same footing as inmates of soldiers' homes in regard to their pensions. The law now requires that the pensions of such inmates of naval homes be paid in for the benefit of the Navy pension fund. In the case of inmates of soldiers' homes such pensions are held intact for their benefit upon discharge, or, under certain circumstances prescribed by law, a portion may be paid to a deserted wife or a dependent child. The same law should apply to pensions of inmates of naval homes.

NAVAL MILITIA.

To promote and increase the efficiency of the Naval Militia there should be a standard organization, professional and physical requirements for officers and enlisted men, and a uniform standard of discipline. There should also be systematic instruction, training, and inspections under the supervision of officers of the Navy. The bureau has detailed experienced officers to instruct the larger organizations and hopes that before long each organization can have the benefit of the advice and instruction of a regular officer.

The practical experience gained by officers and enlisted men of the Naval Militia by the use of naval vessels loaned to the various States has been well demonstrated by the creditable showing of some of the organizations. Vessels of the size and type most useful for this purpose are also in constant demand for general cruising in the West Indies and Central America and on the Asiatic station. The Navy does not possess enough of them to meet both needs. Vessels suitable for the Naval Militia could be built and equipped at a moderate cost, and such an expenditure would be many times repaid by the increased efficiency of this branch, which is the quickest available force outside of the regular service.

NAVAL RESERVE.

The necessity for a reserve naval force is recognized everywhere, even in those countries where the active force is maintained on a large scale.

Experience has demonstrated that in time of war our naval force must be at least doubled. This means that we should have a reserve of about 50,000 men. There is a qualified supply available, and means should be adopted to organize and train it. For this there must be enrollment provision for yearly exercises, and allowances for equipment and other general expenses.

Fifty per cent of a modern man-of-war's crew are skilled men. Of these a large number are dependent on their previous naval training for their skill, which is of an exclusive naval character; the remainder are men skilled in trades not exclusively naval. The sources of supply will then be the ex-service men of the Navy, the Merchant Marine, and the skilled trades on shore.

The information necessary for action by Congress is being obtained by an investigation which was begun early in October. The interest manifested in this preliminary investigation gives evidence that the reserve, as contemplated, would meet with the interest and approval of the men whose membership is desired.

STANDARD SHIP ORGANIZATIONS.

The organizations of ships are now being standardized so that all of one design will be the same and all of a type will have the same general features. The system of numbers for the men and other minor features will be as nearly alike as differences of design will permit. This improvement will enable the crew of one ship to be transferred to another of similar size without confusion, and, in general, officers and men detailed to different classes of ships will more readily learn their duties and stations.

RECEIVING SHIPS.

Before this year the receiving ships at the various yards were, with one exception, old unserviceable vessels, such as the *Wabash* and *Lancaster*. The six principal ones required 15 line officers, 18 staff officers, 5 marine officers, 11 warrant officers, and about 120 men each; and for each ship the annual expenditure for maintenance was about $15,000. Adding the officers' and the men's pay and the men's subsistence, more than $650,000 was spent yearly in connection with vessels no longer capable of active service.

Beginning April 1 a new system was inaugurated at the Philadelphia, Mare Island, and Boston yards, by which the receiving-ship business is carried on by a vessel in commission in reserve, ready on short notice to proceed on any duty assigned. The personnel, accounts, and rolls for the receiving-ship business are kept separate from those of the regular complement and duty of the ship as a cruising vessel in reserve, so that she may readily transfer the whole bodily to another vessel without the delay and labor involved in making out transfer papers. This is accomplished by designating the receiving ship, not by name, but as "The Receiving Ship." When the department designates a vessel, in addition to her status as a vessel in reserve, as "the receiving ship" at that place, those duties are taken up by her, and the receiving-ship personnel, property, accounts, rolls, and records become attached to her without further orders. This system requires fewer officers and men to conduct the receiving-ship business, and the cost of maintenance and repair of the old vessels, unserviceable for any other purpose, is saved; at the same time the services of all men on board the present receiving ship are available to care for a vessel that is in serviceable condition for active service. As soon as practicable it is proposed to establish the same system at other navy yards. Thus, ultimately, the personnel employed with vessels permanently stationary would be reduced by 600 or more, with a saving of nearly $100,000 a year on the upkeep of unseaworthy, insanitary hulks.

In the meantime other reductions have been made in the personnel employed in receiving ships, and changes have been made for the employment of other stationary vessels to the best advantage, as the *Reina Mercedes* and training brig *Boxer* from Newport to Annapolis, replacing the *Santee*, *Olympia*, and *Hartford*, the two latter going to Charleston as station ships, releasing the *Baltimore* for active service. The *Santee* is to be sold.

HISTORIC SHIPS.

The *Constellation*, built in 1797, with nearly a hundred years' cruising service to her credit, is now in bad repair. The *Hartford*, another wooden vessel, will still be capable of stationary service for some years; both these vessels can, with small occasional expenditure, be kept in their present condition almost indefinitely. The *Olympia* should be maintained in serviceable state for her present use for many years to come, and thus be preserved as a famous relic of the War with Spain.

While the vessels themselves are valuable as national memorials their names are worth still more. There are other ships of memorable name still on the list, but not all are in employment appropriate to their history. The battleship *Delaware* is the sixth of her name; the armored cruiser *Washington* the fifth; the *Kearsarge* the second; but *Enterprise* (now sold) and *Essex*, names recalling the most daring exploits, are in the fourth generation borne by schoolships. Paul Jones commanded the first *Ranger*, but the fourth of that name is another schoolship.

The names of our most famous early vessels should be given to some of our best ships, as *Bon Homme Richard*, *Constitution*, *Alfred* (the first vessel to display a Continental flag), *Columbus*, *Congress*, *Franklin* (many years a flagship abroad, the present one having flown Admiral Farragut's flag in Europe), *Lexington*, *Niagara* (one of Perry's fleet on Lake Erie), and the *United States* (launched in 1797). Such reminders of worthy deeds in our history, if continued in association with the current national life, would be a constant inspiration to the country and the Navy.

The present law requires our first-class ships to be named after the States of the Union; the bureau believes that it should be made possible also to perpetuate historic names fittingly by giving them to some of our first-class ships.

STANDARDIZING SHIPS' LIBRARIES.

A standard ship's library has recently been adopted for all ships of the Navy, and the system of issuing the books has been modified. In the past it was the practice when a new book was adopted to list it in a catalogue which was published annually. These new books were issued only upon request from vessels, which had no opportunity to examine them, and were consequently unable to determine from the published titles which of the new works were the most valuable.

The new policy is to furnish immediately to all ships carrying a standard library all the works which are deemed of sufficient importance to be adopted. Better and fresher books are thus furnished. As the annual survey of one-third of a ship's library has been done away with the new system will also make for economy.

SPECIAL NAVAL LANDINGS.

The desirability of having suitable landings for the use of our own and foreign naval vessels at the larger and more important seaports of our coasts is becoming emphasized. In our larger home ports the naval anchorages have by local regulation or by custom become so fixed in their location and the number of such ports much visited is in reality so limited that this need could be met without serious expediture.

RADIOTELEGRAPHY.

Radiotelegraphy legislation enacted during the last session of Congress, though designed especially for the control and regulation of commercial interests, will have an important effect upon the naval organization. The bill of July 23, 1912, requires two or more operators and an auxiliary source of power upon all commercial ships. The act of August 13, 1912, requires the examination and license of all private and commercial apparatus and operators within four months of the date of passage. Other provisions of the act of August 13 bring under executive control the operation of all radio apparatus in accordance with the terms of the Berlin convention. It also requires that naval stations be opened to commercial business in all places not fully served by commercial installations and that the rates for such service be fixed by the Secretary of the Navy. This, in effect, requires the establishment within the department of a complete commercial organization, capable of dealing directly, and making traffic arrangements and accounting with connecting land-wire and radio companies. Accordingly the office of Superintendent of Radio Service has been established under the Bureau of Navigation for the purpose of administering all details connected with the commercial and military operation of the naval radio system. The Bureau of Steam Engineering will be charged with the technical work of supply, maintenance, and experiment; the Bureau of Navigation will furnish trained officers and radio operators and administer the system.

The development of radio for military uses of the fleet is advancing rapidly. Efficiency in this respect is dependent mainly upon skillful operators, improved apparatus, and progressive and intelligent supervision afloat. The assignment of a trained officer as fleet radio officer, the separation of radio electricians from electricians for other duties, and the revision of the instructions concerning the tactical use of radio, all recent measures, contribute to this end.

AVIATION.

In giving the aviation situation, both to show conditions in the Navy and in the aviation world generally, the bureau can not do better than to quote from a report just made by the bureau's aviation expert, Capt. W. Irving Chambers, United States Navy, to whose ingenuity and intelligent industry so much is due for the success so far attained. Great credit is due to the naval aviators who have pursued their dangerous calling without extra pay or allowances, although it is well known that no insurance company will write insurance on the lives of these officers:

> As regards value in warfare aeroplanes have now passed out of the experimental stage to a great extent. Large sums have been appropriated by the powers to obtain the early advantages of their use for military purposes. In military maneuvers and in actual war their value to an army has been demonstrated beyond question.
>
> The development of aviation for marine or naval purposes has been somewhat delayed, but inspired by the early demonstrations of our Navy the naval powers of the world are now devoting large sums of money to this phase of development. It may be asserted that although the aeroplane has not yet arrived at the state of perfection required, yet it is sufficiently advanced to be of great service in many ways, and its satisfactory development for extensive naval use is fairly in sight.
>
> ### THE USES CONTEMPLATED FOR AVIATION IN NAVAL WARFARE.
>
> (A) They can be carried, stowed, and used by all large ships—
>
> (1) To reconnoiter an enemy's port or to search out his advanced bases and to assist in the operations of a blockaded or of a blockading force.
>
> (2) To locate and destroy submarine mines, submarines and dirigibles, and to assist in the operations of submarines and torpedo boats.
>
> (3) To damage an enemy's docks, magazines, ships in repair or under construction, dirigible sheds, and other resources.
>
> (4) To provide means of rapid, confidential communication between a fleet commander and the commanding officer of a cooperating force on shore or the commander of another fleet or division.
>
> (B) They can be carried by all scouts and large cruisers—
>
> (5) To extend the "eyes of the fleet" in naval scouting.
>
> (C) They can be carried, with ample supplies and camp outfit, on board any naval-supply auxiliary—
>
> (6) For scouting at advanced bases and for extensive use with expeditionary forces.
>
> The following statement, while it does not include all sums that have been appropriated by all nations, will serve to show the comparative interest that is manifested in aviation to-day by some of the powers:

	Government appropriation.	Popular subscription.	Total.
France	$6,400,000	$1,000,000	$7,400,000
Germany	1,500,000	750,000	2,250,000
Russia	5,000,000	(?)	5,000,000
Great Britain	2,100,000	(?)	2,100,000
Italy	2,000,000	100,000	2,100,000
Japan	600,000	(?)	600,000
United States	140,000	....	140,000

UNSATISFACTORY LIMITS IN APPROPRIATIONS.

In accordance with the policy of the department, as mentioned in the last annual report of the Secretary of the Navy, aeroplanes are now placed in the same category as other articles of a ship's equipment and are appropriated for accordingly, the general architecture and constructional features being provided by the Bureau of Construction and Repair under its general appropriation "Construction and repair of vessels," and the motive power, including radio apparatus, being provided by the Bureau of Steam Engineering under the appropriation for "Steam machinery," it being intended that the bureaus will do their share in providing the specific parts which naturally come under their cognizance in the department organization.

It seems unnecessary to place a limit on aeroplanes under these appropriations when expenditure on boats, steam steerers, windlasses, boilers, and "all other auxiliaries," costing much more, is unlimited. No economy is effected by placing a limit on any one of the numerous items under these appropriations, and no extravagance can occur by removing the limits on aeroplanes, because, regardless of limits, the amount of each appropriation remains the same and expenditure on each aviation item will be jealously guarded by the bureau concerned.

It is particularly unfortunate that the small limit of $20,000 is placed on aeroplane machinery this year, because our experience shows that each aeroplane used for instructions requires two motors to carry on the work effectively. This, of course, will be impossible under the present limit, as the expense of repairs is also comparatively great.

The plan thus far in our service is to restrict the shore establishment as far as possible, to place a few machines on shipboard at the earliest practicable date for test, and then to carry on the instruction in the midst of the fleet in a systematic way.

Our endeavor is to protect our aviators against their zeal by prohibiting sensational flights that are unnecessary to the progress of development; but it is due to them that they be encouraged in their work by a liberal extra allowance based on the time spent in actual flight and a liberal pension for those dependent on them in event of death due to this service.

Since April 1, 1911, when they were transferred to Annapolis, the four aviators who have been regularly engaged in the work of instruction have made 593 flights in the three Navy machines up to the end of August, 1912, the total time in the air being 126 hours 20 minutes, during which a distance of 6,422 miles has been traversed and 272 passengers have been carried.

Our navigators have demonstrated that hydro-aeroplanes can be readily flown at altitudes of 3,000 feet or more, where they are practically immune from rifle fire, and that the hydro-aeroplane is suitable for long flights. They have been the first to demonstrate that it is practicable to send aeroplanes in flight from ships, that it is possible to hoist them in and out like a ship's boat, and that it is possible to carry on instruction from a ship, using the water as an aerodrome. The work in progress indicates that they will soon be able to leave the ship in flight without more trouble or preparation than is required to discharge a torpedo from an upper deck and to continue in flight with the machine automatically controlled and comparatively safe.

Improved safety appliances will place the aviator in the category of a real aerial navigator comparatively free to navigate in fog or in darkness, by the aid of a real air compass, to observe, to communicate his observations by means of the wireless or other signaling apparatus, and to make long flights without undue exhaustion and in weather that renders flying uncertain at present.

But to hasten the development of inherent stability and to further increase the safety of machines by automatic mechanism, as well as to increase our knowledge of the science of aerial navigation in all its branches in the shortest possible time, the establishment of an aerodynamical laboratory is necessary.

The reason for this and the measures required are given at length by Capt. Chambers in an appendix to the bureau's report. (Appendix No. 1.)

The bureau invites the department's attention to the reason given for the establishment of an aerodynamical laboratory and suggests that a board or commission be appointed as recommended.

NAVAL OBSERVATORY.

The observatory has continued its work of making astronomical observations, publishing the American Ephemeris and Nautical Almanac, supplying the fleet with navigational instruments, and establishing standard time and differences of longitude.

The department issued a circular letter on February 26, 1912, inviting all officers to submit to the Bureau of Navigation suggestions looking to the improvement of navigational methods or instruments. The circular was also sent to manufacturers of nautical instruments. The large number of responses to this circular, both from officers and civilians, have contained valuable suggestions. Numerous instruments or attachments to them have been tried, or arrangements are in progress for their trial, with a view to their adoption if found to be suitable or better than similar ones now in use. Improvements in navigation methods and text books are in preparation.

The observatory has given great attention to the development of the gyro compass. There were many defects in the first ones delivered, but they have been largely overcome. The first contract was for eight sets. A second contract for 10 sets has been entered into under very much more stringent specifications than in the first one. The utility of the gyro as a battle compass has been demonstrated and the bureau expects to supply one for each battleship and submarine.

With the completion of the powerful radio station at Arlington, the observatory is contemplating a time signal which will reach ships at great distances at sea. It is hoped to reach the greater part of the North Atlantic and North Pacific Oceans by this means. Plans are also being made to send radio signals for the determination of differences of longitude, and it is hoped that the first of these will be between the Naval Observatory and the Observatory of Paris via the Arlington Station and Eiffel Tower. Prof. Asaph Hall, United States Navy, of the observatory, was ordered to attend the conference held in Paris, October 15, 1912, to consider questions concerning radio signals from the Eiffel Tower for time and other purposes.

Numerous letters received at the observatory and articles in the technical press indicate that jewelers in various parts of the country are contemplating the use of radio apparatus in getting correct time daily. It is proposed to issue at an early date a pamphlet on standard time and time signals, with general information as to their reception by radio telegraphy.

HYDROGRAPHIC OFFICE.

During the year the Hydrographic Office has maintained the high standard of work it long ago established. Until May 26 the office was under the administration of Capt. John J. Knapp. He was relieved on that date by Commander George F. Cooper.

During the administration of Capt. Knapp the office rendered valuable service to the maritime world by the efficient manner in which it disseminated information concerning the *Titanic* disaster, which is fully set forth in the hydrographer's report. Prior to the collision of the *Titanic* with the iceberg the Hydrographic Office had given repeated warnings of bergs in the neighborhood of the steamship lanes crossing the Atlantic, and the office received a radiogram on the day the *Titanic* struck, indicating bergs very near her track. She, herself, transmitted this radiogram from the *Amerika*. The Hydrographic Office at once made public the message. The office immediately recommended to the steamship lines that they move the lanes south so that they would clear the ice fields. The department established for trial an ice patrol of the steamship lanes. This was very greatly appreciated by the maritime world and should be continued each year during the ice season. It would be advisable to have a special vessel for this purpose. It could locate dangerous bergs and floes and communicate their positions and the direction of movement to vessels by radio. The bureau recommends that the department plan to continue this ice patrol each year. It is properly a function of the Navy, and the information to be obtained is urgently needed by the Hydrographic Office for the protection of merchant shipping.

Arrangements are being made for reproducing by photolithography charts of foreign waters that are not now published by the office. When all these charts are published by the Hydrographic Office we shall be independent of foreign sources of supply charts for our navigation of foreign waters.

The survey work of the office has progressed rapidly during the year, there having been four parties in the field. One of these parties established the geographic positions of points on the coast of Cuba, many of which have long been in doubt.

The pilot charts continue to be one of the most valuable publications of the office and are the means of obtaining a great deal of data for the correction of charts and sailing directions. The preparation and publication of these pilot charts should remain under the supervision of men who are navigators and seamen by training.

The branch office at Port Townsend, Wash., should be moved to Seattle, and a coordinate branch of the same office established at

Tacoma. A branch office should be established at Los Angeles, Cal. The shipping interests of this port, already great, will be much increased upon the completion of the Panama Canal. The branch office at Panama can not be established until an appropriation is made for it. The amount of the appropriation necessary is in the estimates for 1914.

The work of the Hydrographic Office still suffers from having only two officers on duty there.

CONSOLIDATION OF THE NAVAL OBSERVATORY AND HYDROGRAPHIC OFFICE.

Following the department's plan, the bureau has had under consideration the method for consolidating the activities of the Naval Observatory and Hydrographic Office. Both the Naval Observatory and the Hydrographic Office are employed in supplying the fleet with navigational equipment, both are concerned in the instruction of navigators; the Hydrographic Office controls the marine surveying parties, yet the observatory provides and attends to the repair of instruments for them, instructs surveying officers in the use of astronomical instruments and cooperates with them in the determination of longitudes. In numerous ways the two institutions have unity of interests and should harmonize and strengthen each other under one management.

Should the consolidation be effected, it would seem advisable to give the superintendent an assistant as director of the department of astronomical observations who would fill a position with reference to that department similar to that of the Director of the Nautical Almanac. This assistant should be a distinguished civilian astronomer, or an officer trained in astronomy. The question of suitability should be paramount and an adequate salary should be provided, if a civilian.

A building should be erected on the Naval Observatory grounds especially designed for the needs of the Hydrographic Office. This would greatly increase the efficiency of that office, as it has never had quarters especially adapted for its work. It would also be of very great value to the Navy Department by permitting it to move some of its crowded force into the space now occupied by the Hydrographic Office.

APPENDICES.

No. 1.—Report on Aviation, by Capt. W. I. Chambers, United States Navy.

No. 2.—Report of Superintendent, Naval Observatory.

No. 3.—Report of Hydrographer.

In concluding this report to the department, I wish to record the faithful and efficient service, and the zeal displayed by all in the bureau in transacting its business. The number of days of recorded overtime work, cheerfully given by the clerical force of the bureau, speaks volumes for their interest in their work; the officers attached to the bureau also have given considerable time to the work of the bureau outside of office hours, but this is unrecorded.

PHILIP ANDREWS.

STATISTICS.

Number and disposition of apprentice seamen at the several training stations for the fiscal year ending June 30, 1912.

Training stations.	Transferred to general service.	At station July 1, 1912.	Died during fiscal year.	Discharges during fiscal year.	Deserted during fiscal year.	Total at station during year.
Newport, R. I.	4,144	1,151	5	127	86	5,513
Norfolk, Va.	1,815	412	2	109	43	2,381
North Chicago, Ill.	1,232	374	3	68	40	1,717
San Francisco, Cal.	1,559	576	3	44	130	2,312

Enlistments.

Applicants for enlistment			73,364
Applicants physically qualified and enlisted:			
First enlistment	11,516		
Reenlistment	5,720		
Applicants' disqualifications waived and enlisted	507		
		17,743	
Applicants accepted who failed to enlist		3,829	
Applicants rejected for physical disability	36,999		
Applicants rejected for other causes	14,793		
		51,792	
			73,364

Summary of enlistments.

Number of enlistments at recruiting stations	12,489
Number of enlistments at naval stations in the United States	716
Number of enlistments at foreign naval stations	333
Number of enlistments on receiving ships	2,740
Number of enlistments on cruising vessels	1,465
Total enlisted	17,743

Discharges, retirements, and deaths.

Number of men discharged:	
With honorable discharge, expiration of enlistment	10,500
With ordinary discharge, expiration of enlistment	932
With ordinary discharge, expiration of enlistment, not recommended for reenlistment	73
With dishonorable discharge	755
With bad-conduct discharge	1,507
For physical disability	1,032
For unfitness	2
For inaptitude	128
As undesirable	509
Miscellaneous reasons	142
By purchase	403
Enlistment canceled	40
Total discharges	16,023
Number of men who applied for retirement during year ending June 30, 1912	37
Number of men died	224
Number of deserters	2,278
Grand total (loss)	18,562

The above number of men who left the service, 18,562, is 39 per cent of the number of men allowed and 29 per cent of the total number in the Navy during the year.

Desertions for fiscal year ending June 30, 1912.

Men absenting themselves from ship or station without authority		3,055
Men voluntarily returning to service	503	
Men apprehended	485	
Total surrendered and apprehended		988
Total absentees, June 30, 1912		2,067
Apprehended or surrendered; convicted of desertion		211
Desertions for fiscal year ending June 30, 1912		2,278
Percentage of desertions based on 64,483, the whole number of enlisted men in the service during the year		3.52

Citizenship.

	Native born.	Naturalized.	Aliens declared intentions.	Aliens resident in United States.	Aliens nonresident in United States.	Natives of—				Total.
						Porto Rico.	Guam.	Samoa.	Philippines.	
Petty officers	13,684	2,064	63	11	13	7	5	5	106	15,958
Other rates	29,175	811	65	150	153	39	67	78	1,019	31,557
Total	42,859	2,875	128	161	166	46	72	83	1,125	47,515

The above includes 864 prisoners who are not counted in the full number allowed by law.

Number and percentage of citizenship.

		1910	1911	1912
Petty officers	number	14,333	15,479	15,958
Native born	per cent	83.43	84.95	85.75
Naturalized	do	14.68	13.49	12.93
Declared intentions	do	.89	.57	.40
Aliens resident in the United States	do	.07	.12	.07
Aliens nonresident in the United States	do	.21	.17	.08
Natives of colonial possessions	do	.72	.70	.77
Citizens of the United States	do	98.11	98.44	98.68
Enlisted men other than petty officers	number	30,743	32,133	31,557
Native born	per cent	91.51	92.13	92.46
Naturalized	do	3.46	2.99	2.57
Declared intentions	do	.41	.32	.21
Aliens resident in the United States	do	.65	.47	.47
Aliens nonresident in the United States	do	.50	.57	.48
Natives of colonial possessions	do	3.47	3.52	3.81
Citizens of the United States	do	94.97	95.12	95.03
Citizenship of the total enlisted force	number	45,076	47,612	47,515
Native born	per cent	88.94	89.79	90.20
Naturalized	do	7.03	6.41	6.05
Citizens of the United States	do	95.97	96.20	96.25

Nativity and residence of the enlisted force.

Native born	42, 663
Foreign born	4, 852
Total force	47, 515

States furnishing greatest number native born.

New York	6, 484	Michigan	1, 314
Illinois	2, 537	Massachusetts	2, 575
Indiana	1, 695	New Jersey	1, 813
Texas	1, 323	Missouri	1, 381
Pennsylvania	4, 648	Iowa	1, 014
Ohio	2, 466		
Maryland	1, 421	Total	28, 671

Greatest number of foreign born, by countries.

Philippines	1, 123	Ireland	435
Sweden	294	China	232
Japan	214		
Germany	636	Total	3, 170
England	236		

Residents of the United States	45, 726
Nonresidents	1, 789
Total force	47, 515

Color.

White	44, 261
Negro	1, 438
Chinese	258
Japanese	210
Filipino	1, 125
Samoan	83
Chamorro (Guam)	72
Hawaiian	18
Indian American	4
Porto Rican	46
Total, including 864 prisoners under sentence dishonorable discharge	47, 515

Good-conduct medals.

Number of medals held by enlisted men.	Men.	Medals.
One medal	2,154	2,154
Two medals	705	1,410
Three medals	313	939
Four medals	139	556
Five medals	60	300
Six medals	25	150
Seven medals	6	42
Total	3,402	5,551

Comparative statement of reenlistments.

	1911	1912	Increase.	Decrease.
Men entitled to reenlist under discharge	6,752	11,432	4,680	....
Total men reenlisted	3,849	6,227	2,378	....
Total men enlisted	15,724	17,743	2,019	....
Percentage of men entitled to reenlist who reenlisted	57	54	....	3
Men enlisted for fiscal year to serve during minority	2,410	2,250	....	160
Enlisted men serving during minority	6,243	6,646	403	....
Men holding certificates of graduation	1,180	1,292	112	....
Men serving under continuous service certificates	11,405	12,955	1,550	....
Total number of men serving under reenlistments June 30	12,978	15,309	2,331	....
Per cent of enlisted men serving under reenlistment June 30	27.26	32.22	4.96	....
Men serving June 30:				
Under first enlistment	34,634	32,206	....	2,428
Under second enlistment	8,055	9,289	1,234	....
Under third enlistment	2,704	3,516	812	....
Under fourth enlistment	931	1,078	147	....
Under fifth enlistment	538	542	4	....
Under sixth enlistment	328	366	38	....
Under seventh enlistment	186	266	80	....
Under eighth enlistment	147	159	12	....
Under ninth enlistment	80	79	....	1
Under tenth enlistment	9	14	5	....
Total in service, including prisoners, June 30	47,612	47,515	....	97

List of new vessels commissioned during the fiscal year ending June 30, 1912.

Vessel.	Date.	Vessel.	Date.	Vessel.	Date.
Mayrant	July 12, 1911	E-1	Feb. 14, 1912	F-1	June 19, 1912
Utah	Aug. 31, 1911	E-2	Do.	Fanning	June 21, 1912
Florida	Sept. 15, 1911	Jouett	May 25, 1912	F-2	June 25, 1912
Patterson	Oct. 11, 1911	Jenkins	June 15, 1912		

List of vessels recommissioned during the fiscal year ending June 30, 1912.

Vessel.	Date.	Vessel.	Date.	Vessel.	Date.
Navajo	July 1, 1911	Hannibal	Oct. 16, 1911	Isla de Luzon	Apr. 27, 1912
Pompey	July 6, 1911	Yosemite	Nov. 27, 1911	Annapolis	May 1, 1912
Marblehead	July 22, 1911	Denver	Jan. 4, 1912	Kentucky	June 4, 1912
Nashville	July 24, 1911	Alert	Jan. 25, 1912	Kearsarge	June 17, 1912
San Francisco	Aug. 21, 1911	Cleveland	Apr. 8, 1912	Galveston	June 29, 1912
Oregon	Aug. 29, 1911	Illinois	Apr. 15, 1912	Chattanooga	Do.
St. Louis	Oct. 9, 1911	Alabama	Apr. 17, 1912		

List of vessels placed in first reserve during the fiscal year ending June 30, 1912.

Vessel.	Date.	Vessel.	Date.	Vessel.	Date.
Pennsylvania[1]	July 1, 1911	Maine	Dec. 6, 1911	Bainbridge	Apr. 24, 1912
Montana	July 26, 1911	Warrington	Jan. 22, 1912	Hopkins	June 1, 1912
San Francisco	Aug. 21, 1911	Alert	Jan. 25, 1912	Lawrence	Do.
Oregon	Aug. 29, 1911	New Orleans	Feb., 14, 1912	Farragut	Do.
Iowa	Sept. 1, 1911	West Virginia	Mar. 16, 1912	Goldsborough	Do.
Indiana	Do.	Fox	Apr. 13, 1912	Rowan	Do.
Massachusetts	Do.	Davis	Do.	Truxtun	Do.
St. Louis	Oct. 9, 1911	Birmingham	Apr. 20, 1912	Paul Jones	Do.
Marietta	Nov. 24, 1911	North Carolina	Do.	Fortune	June 28, 1912
Yosemite	Nov. 27, 1911	Salem	Do.	A-5	Do.
Castine	Do.	Chester	Apr. 22, 1912	A-3	Do.

[1] Renamed Pittsburgh Aug. 28, 1912.

List of vessels placed in second reserve during the fiscal year ending June 30, 1912.

Vessel.	Date.	Vessel.	Date.	Vessel.	Date.
Tacoma	July 12, 1911	Illinois	Apr. 15, 1912	Galveston	June 29, 1912
Marblehead	July 22, 1911	Alabama	Apr. 17, 1912	Chattanooga	Do.
Denver	Jan. 4, 1912	Kentucky	June 4, 1912		
Cleveland	Apr. 8, 1912	Kearsarge	June 17, 1912		

List of vessels placed out of commission during the fiscal year ending June 30, 1912.

Vessel.	Date.	Vessel.	Date.	Vessel.	Date.
Alliance	July 7, 1911	Pensacola	Dec. 23, 1911	Cushing	Apr. 5, 1912
Hist	July 24, 1911	Yosemite	Jan. 23, 1912	Mackenzie	Apr. 15, 1912
Dubuque	Do.	McKee	Jan. 29, 1912	Wabash	Apr. 20, 1912
Talbot	Oct. 12, 1911	Atlanta	Mar. 23, 1912	Wolverine	May 6, 1912
Iroquois	Nov. 25, 1911	Lancaster	Mar. 31, 1912	Isla de Luzon	May 11, 1912
Annapolis	Dec. 16, 1911	Ericsson	Apr. 5, 1912		

New collier placed in service during the fiscal year ending June 30, 1912.

Vessel.	Date.
Neptune	Sept. 20, 1912

List of colliers placed in service during the fiscal year ending June 30, 1912.

Vessel.	Date.
Alexander	July 6, 1911
Sterling	Aug. 15, 1911
Nero	Sept. 16, 1911

List of colliers placed out of service during the fiscal year ending June 30, 1912.

Vessel.	Date.	Vessel.	Date.	Vessel.	Date.
Pompey	July 6, 1911	Leonidas	May 3, 1912	Ajax	May 10, 1912
Hannibal	Aug. 15, 1911	Vulcan	May 4, 1912	Brutus	May 20, 1912
Saturn	Sept. 30, 1911	Neputne	May 6, 1912	Sterling	May 29, 1912

List of vessels stricken from the Navy Register during the fiscal year ending June 30, 1912.

Vessel.	Date.	Vessel.	Date.	Vessel.	Date.
Hist	July 27, 1911	Yosemite	Mar. 1, 1912	Atlanta	Apr. 24, 1912
Alliance	Aug. 9, 1911	McKee	Apr. 8, 1912	Talbot	May 1, 1912
San Marcos	Oct. 11, 1911	Cushing	Do.	Isla de Cuba	May 17, 1912
Pensacola	Dec. 23, 1911	Ericsson	Do.	Alvarado	May 20, 1912
Locust	Jan. 6, 1912	Yankee	Apr. 17, 1912		

APPENDIX No. 1.

REPORT ON AVIATION.

BUREAU OF NAVIGATION, NAVY DEPARTMENT,
Washington, September 21, 1912.

From: Capt. W. I. Chambers, United States Navy.
To: The Bureau of Navigation, Navy Department.

Subject: Report on aviation.

The status of aviation in the world to-day may be summarized as follows:

The work of established aerodynamic laboratories has transported aeronautics generally into the domain of engineering, in consequence of which aviation has reached a stage of development wherein the methods of scientific engineers have replaced the crude efforts of the pioneer inventors.

The development of aviation for marine or naval purposes has naturally been somewhat delayed, but, inspired by the early demonstrations of our Navy, the naval powers of the world are now devoting large sums of money to this phase of development. It may be asserted that although the aeroplane has not yet arrived at the state of perfection required by all the work contemplated for it in naval warfare, yet it is sufficiently advanced to be of great service in many ways, should it be required for use in emergency, and its satisfactory development for extensive use is fairly in sight.

Those who are engaged in the development of aviation for war purposes do not pretend that it is going to revolutionize warfare, but it has been fully demonstrated that of two opposing forces, the one which possesses superiority in aerial equipment and skill will surely hold a very great advantage.

CONTEMPLATED USES OF AEROPLANES IN NAVAL WARFARE.

A. They can be carried, stowed, and used by all large ships—

(1) To reconnoiter an enemy's port or to search out his advanced bases and to assist in the operations of a blockaded or a blockading force.

(2) To locate and destroy submarine mines, submarines and dirigibles, and to assist in the operations of submarines and torpedo boats.

(3) To damage an enemy's docks, magazines, ships in repair or under construction, dirigible sheds and other resources.

(4) To provide means of rapid confidential communication between a fleet commander and the commanding officer of a cooperating force on shore, or the commander of another fleet or division.

B. They can be carried by all scouts and large cruisers to extend the "eyes of the fleet" in naval scouting.

C. They can be carried, with ample supplies and camp outfit, on board any naval supply auxiliary for scouting at advanced bases and for extensive use with expeditionary forces.

WHAT IS BEING DONE ELSEWHERE.

France leads the world in aviation, and all that she does is worth noting. A short time ago, in response to an inquiry by the minister of war, over 3,000 officers signified their desire to learn aerial navigation. Germany leads in aerostation, but is making great progress in aviation also. France has 8 dirigibles, Germany 30. The number of aeroplanes actually possessed by each is a rapidly increasing quantity, but France will probably possess about 350 before the end of the year, the ultimate aim being to possess 1,000 as soon as the requisite number of pilots can be taught to use them.

It is significant of German foresight that one of the first steps undertaken, when it was decided to construct a large aeroplane fleet, was to found an aerodynamic laboratory. This is at Gottingen, where the best known course of instruction in aeronautics is ably conducted by Prof. Prandtl.

The following statement, while it does not include all large sums that are being spent, will suffice to compare our own activity with that of some of the principal powers:

	Government appropriation.	Popular subscription.	Total.
France	$6,400,000	$1,000,000	$7,400,000
Germany	1,500,000	750,000	2,250,000
Russia	5,000,000	(?)	5,000,000
Great Britain	2,100,000	(?)	2,100,000
Italy	2,000,000	100,000	2,100,000
Japan	600,000	(?)	600,000
United States	140,000	....	140,000

Exact details are lacking of the progress in many other countries, but all progressive powers are bent on keeping abreast of the times, especially the British colonies, Russia, Japan, and Austria. The latter country has produced one of the very best aeroplanes in existence, the Etrich, and is also developing the hydroaeroplane.

DEVELOPMENT IN THE UNITED STATES NAVY.

When Congress appropriated $25,000 for the development of naval aviation last year, three officers had been ordered to aeroplane factories for instruction, in anticipation of three machines which were finally purchased, two Curtiss and one Wright.

At that time a land aerodrome was necessary for practice, and a hangar was accordingly built on Greenbury Point, Annapolis, Md., where a sufficient area of flat land was prepared for an aerodrome by the leveling of some trees and the partial filling of a swamp. This served its purpose until the Navy machines had all been provided with hydroplanes and we had demonstrated the practicability of carrying on instruction entirely over water. The aerodrome is now held in reserve for the housing of spare machines, for the exercise of the land attachment of the hydroaeroplanes and for any other emergency use.

It was originally contemplated to establish an aviation school in conjunction with the naval engineering experiment station, where experiments could be expedited, but it soon became apparent that the desired number of officers and men could not be spared away from their regular duties for a sufficient period and that the progress of instruction would be seriously delayed until the machines had been suitably developed and equipped for issuing to ships of the fleet, where practical instruction could proceed, with ample resources, in a systematic routine way. Incidentally, it was recognized that to get good service from these machines in the fleet constant practice would be required and the personnel be made as familiar with them as with other articles of equipment.

This was the first object in favoring the hydroaeroplane attachment.

To-day it is recognized the world over that hydroaviation offers one of the most promising fields of development, for the reason that a water aerodrome is nearly always available, is safer in landing, is less obstructed, and the aerial currents over water are less treacherous than over land. A ship provided with aeroplanes will thus become the hangar and will be surrounded usually by an ideal aerodrome, i. e., by water sufficiently smooth for practice.

Last December the three machines with their aviators were transferred to San Diego, Cal., where a camp was formed with small tents from the U. S. S. *Iris* and hangar tents of the Army pattern, which had been prepared at the Mare Island Navy Yard.

Experience with these tents demonstrated certain defects and that they were not conducive to efficient progress with a small force of men. Better tents, designed by the Bureau of Construction and Repair, have been made to replace them.

After a season of winter work at San Diego the camp was transferred again to Annapolis, and located nearer the engineering experiment station on the north shore of the Severn River. This experience with tents has demonstrated that they not only facilitate the removal of a camp from one place to another, but that it is cheaper to use them than to provide permanent sheds of more durable material at all the places where a camp may be established. The use of tents also enables us to be prepared, with the advantage of experience, to transport, at short notice, all the material that may be required at an advanced base.

INSTRUCTION AND TESTS.

Many officers interested in this work have applied for instruction, but, as before mentioned, it has not been possible to detach from their regular duties, even temporarily, all who desire the experience. Eight officers have qualified.

At the end of August, 1912, a total of 593 flights had been made by the four instruction aviators in the three machines. The record stands as follows:

	Flights.	Total time.		Distance.	Passengers carried.
In Curtis machines:		*H.*	*m.*	*Miles.*	
Lieut. Ellyson	200	40	30	2,227	111
Lieut. Towers	202	37	2	2,035	100
In the Wright machine:					
Lieut Rogers	132	33	54	1,530	52
Ensign Herbster	59	14	54	630	9
Total	593	126	20	6,422	272

During flights over water the aviator can usually count on a safe place to land. For this reason most of our hydro flying has been done at an altitude of about 500 feet. But as scouting and reconnoissance work will require flying at an altitude of about 3,000 feet, Lieut. Ellyson has demonstrated that there will be no difficulty in flying the hydroaeroplane at 3,000 feet or over. On one occasion he ascended to 2,850 feet in 23 minutes and 25 seconds. On another occasion, in testing a lower grade of gasoline, he ascended 3,200 feet, but it required 44 minutes to reach the first 2,500 feet. Investigation of the different grades of gasoline shows that the difference in efficiency is considerable.

The longest flight yet made with passenger anywhere in the hydroaeroplane is that made by Lieuts. Ellyson and Towers jointly, from Annapolis, Md., to Hampton Roads, Va., and return, and this flight amply demonstrated three things: (1) The suitability of the "hydro" as a type for long flights; (2) the practicability and utility of the dual system of control; and (3) the necessity for greater improvement in motors. The return flight was enlivened, in very cold weather, by a series of minor mishaps to the motor. In making such flights it is still advisable to follow a shore line convenient for landing in case of motor trouble.

Lieut. J. H. Towers, United States Navy, has recently made a flight of 6 hours, 10 minutes, and 35 seconds with the standard Navy Curtiss hydroaeroplane. This was made in due course of regular work, but it stands as a world's record for flight in a hydroaeroplane and the American endurance record for flight in any kind of a machine. A performance of five hours only would have been satisfactory.

As a part of the instruction and a fruitful means of informing us concerning necessary improvements many repairs have been made by the aviators themselves, and the enlisted mechanics detailed for the purpose have received instruction in this way. A new Wright machine has also been built in this way from spare parts purchased from the company.

It has not been possible, under the circumstances of a meager appropriation and few officers, combining instruction with experimental work, to establish a thoroughly satisfactory system of instruction as yet. The ideal would require each aviator student to obtain a course of study in aerodynamics and meteorology up to date of about four months, such as that recently established at the Massachusetts Institute of Technology, the theory preceding the practical work, if possible. Such a course would be best attained by the establishment of a school for aviators in connection with the lectures at a national aerodynamic laboratory.

Experimental work.—The work of instruction has been handicapped by a practically continuous series of experiments, with the result that long delays in repairing have rendered work in both particulars slower than was anticipated. On the whole, this method of experimentation for the solution of problems other than the improvement of minor structural details and the test of navigating instruments is very unsatisfactory. Important experiments involving physical research should be relegated to an aerodynamic laboratory and its aerodrome annex. Other important experiments, such as the development of wireless, requiring frequent changes, should be made at an air-craft factory, where extensive repairs and reconstruction are facilitated. Special facilities already exist for doing such work at the Washington Navy Yard.

Some experimental work has been done on different methods of installing the wireless plant, but intermittently, owing to the enforced absence of the expert officer, whose suggestions were being followed. Although the work is unfinished, it has given promise of realizing a range of 50 miles at a sacrifice of 50 pounds only in weight.

Most of the experiments have been devoted to improving mechanical details of the motors and to trying different models of hydroplanes, the result of laboratory investigation at the model basin.

Much useful information has been gained thus about hydroplanes and many uncertain but alluring ideas have been eliminated. There are seven different types of hydroaeroplanes now in France, but our efforts have been confined chiefly to two distinct American types, the single boat with balancing pontoons and the catamaran type with two pontoons. Both types have given great satisfaction, but the single boat, which has been used on both the Wright and the Curtiss machines, seems best for our purposes. It is superior in rough water and it is the father of the flying boat, toward which our ideas have always been inclined.

The flying boat was discussed in the early days, about 1905, between Mr. Glenn H. Curtiss and representatives of the Bureau of Equipment. The first real flying boat was made and tested at Hammondsport, N. Y., a year ago last summer, and flown last winter at San Diego, Cal. After several alterations in the location of the motive power, the Curtiss flying boat tested this summer, with great satisfaction, by Lieuts. Ellyson and Towers, is regarded as a decided advance in hydroaeroplane design and gives promise of extended usefulness in rough water.

Catapult.—Tentative experiments with a compressed-air catapult for sending aeroplanes in flight over the shortest possible track have been made and their early completion is expected to avoid requiring a ship to carry a demountable platform.

The practicability of sending aeroplanes in flight from a suitable platform on board ship was early demonstrated by Eugene Ely in flights from the U. S. S. *Birmingham* and the U. S. S. *Pennsylvania.* We have frequently demonstrated the practicability of sending them in flight from water alongside of a ship, and both Mr. Glenn H.

Curtiss and Lieut. John Rodgers have flown alongside of a ship, have been hoisted on board and hoisted out again in a hydroaeroplane. Lieut. Ellyson has successfully performed the daring experiment of showing the possibility and facility with which a hydroaeroplane can be sent in flight from a ship in smooth water over an improvised single wire cable, but I would not recommend the use of this device on a ship with rolling motion. Lieut. Ellyson also eagerly subjected himself in a hydroaeroplane to the extreme shock of the catapult device in order to test the effect of such a shock not only on the aviator but on the motor attachments and other fittings. This crucial test was entirely satisfactory in its revelations, although the aviator and machine got a ducking, and it will probably never be required again.

There is no risk that these zealous aviators will not cheerfully undertake in the interest of adapting the art of aviation to naval purposes, and it is worthy of note that the work has progressed thus far without serious accident, although it has been arduous, dangerous, and replete with temptations for the aviators to rival many of the sensational performances that have resulted disastrously to contemporary pioneers in civil aviation.

A simple and convenient self starter is a practical necessity to the hydroaeroplane before issuing it for ship use. Several mechanical devices have been tried with varying success, but other more promising devices are about to be tried and there is reason to believe that the very best will soon be in use on all of our machines.

Instruments.—Aviators and manufacturers have been slow in making use of instruments which not only make flying safer, but which may be made to relieve the aviator of much of the nervous tension and strain of long flights and flying in uncertain weather. A constant increase in the number of disasters has disturbed the people of France for some time, with the result that special attention has been given to the problem of safety; special efforts have been made not only to improve inherent stability and structural strength, but to provide means for controlling the equilibrium automatically.

One can not blame those who are already skilled in flying for being conservative in this matter, in view of the many defective devices that have been exploited to effect the object. There is good reason for going slowly and carefully in the test of anything that presumes to take the place of the aviator's skill, but manufacturers and aviators are beginning to realize that progress in aviation is greatly dependent upon the perfection of instruments for safe guidance and automatic control, that there is something more than acrobatic skill required to place aviation on a practical footing in the Navy, that the elimination of man as a factor of chief importance by the supply of mechanism which will perform the things that he is prone to do indifferently, especially under the strain of fatigue, is a practical necessity to his success as a real aerial navigator.

Simple and reliable automatic control devices which may be added without sacrifice of too much weight are now being eagerly sought and some that may be rigged to work automatically, semi-automatically, or not at all, at the will of the aviator, are being made.

The air compass.—Much important work for which the aeroplane will be useful in the Navy will not necessarily require the air pilot to navigate in a fog or at night or out of sight of his base, but in sea scouting, which I think is destined to be one of his principal spheres of usefulness, the pilot may be caught in a fog, he may be obliged to navigate at night and will have to lose sight of his base frequently. It must be possible, therefore, to navigate as accurately in air as it is to navigate a ship by dead reckoning at sea.

Motors.—Improvements have been confined principally to the correction of small defects which have been made as soon as discovered. Much more could be said about what is still needed. When anything goes wrong or when trouble begins in a flight that promises well, some trifling detail of the motor is usually at fault, a small pin here, a pump connection there, but nearly always something new and unexpected. It was so with the early motors of automobiles and this thought inspires confidence in the perfection of aviation motors, although the demand is still greater for increased power or speed rather than reliability and durability.

Range of speed.—A weight-carrying aeroplane such as a hydroaeroplane necessarily needs a motor with considerable range of speed, and the same kind of motor is needed to reduce the danger of alighting. This is not the kind of a motor and combination of motor and surfaces that now wins the speed contests, such as that for the Gordon Bennett cup. I think aviation would be improved if the terms of future speed contests were arranged so as to require each contestant to go over the course twice, the second time at an average speed 20 per cent lower than his highest average.

Requirements.—A year ago our manufacturers requested specific information as to the conditions to be satisfied in adapting the aeroplane for naval use. The answers at that time were necessarily indefinite, but with the benefit of a year's experience we have been able to issue a set of "general requirements" sufficiently broad in scope to permit a wide latitude for ingenuity and improvement.

These requirements cover not only the peculiar conditions to be satisfied in naval aviation, but, for the first time, require our builders to show that their machines are designed in accordance with up-to-date practice. Builders are required to provide technical data which will eliminate from competition all who depend on haphazard methods. Complete stress diagrams under different conditions of load and all the fundamental characteristics, a knowledge of which is indispensable to an intelligent comparison of designs, are demanded. The stamp of approval is given to the introduction of improved methods for the automatic control of equilibrium, and our builders are encouraged to attain a high degree of efficiency, to improve the factors which govern safety, and nothing is demanded that may not be readily accomplished under the limitations of the art as it is generally understood at present.

UNSATISFACTORY LIMITS IN APPROPRIATIONS.

In accordance with the policy of the department, as mentioned in the last annual report of the Secretary of the Navy, aeroplanes are now placed in the same category as other articles of a ship's equipment, and are appropriated for accordingly, the general architecture and constructional features being provided by the Bureau of Construction and Repair under its general appropriation, "Construction and repair of vessels," and the motive power, including radio apparatus, being provided by the Bureau of Steam Engineering under the appropriation for "Steam machinery," it being intended that all bureaus will do their share in providing the specific parts which naturally come under their cognizance in the department organization.

It seems unnecessary to place a limit on aeroplanes under these appropriations when expenditure on boats, steam steerers, windlasses, boilers, and "all other auxiliaries," costing much more, is unlimited. No economy is effected by placing a limit on any one of the numerous items under these appropriations and no extravagance can occur by removing the limits on aeroplanes, because, regardless of limits, the amount of each appropriation remains the same, and expenditure on each item will be jealously guarded by the bureau concerned to carry on current work as necessities arise.

It is particularly unfortunate that the small limit of $20,000 is placed on aeroplane machinery under the Bureau of Steam Engineering, because our experience shows that each aeroplane used for instruction requires two motors to carry on the work effectively. This of course will be impossible under the present limit, as the expense of repairs is also comparatively great. The limit of $35,000 under construction and repair is unsatisfactory also.

INFLUENCE OF FOREIGN LABORATORIES.

Little more than a year ago our knowledge of the effect of air currents upon aeroplane surfaces was almost entirely a matter of theory. The exact information available was so meager that aeroplanes were built either as copies, slightly modified, of other machines, or else by way of haphazard experiment. This state of affairs obtains to some extent in the United States to-day, although in Europe aeroplane construction is now largely based on scientific data obtained at notable aerodynamic laboratories.

The intuitive, hasty, and crude methods of the pioneer can not succeed in competition with the accurate and systematic methods of the scientific engineer, and it is beginning to dawn upon our perceptions that through lack of preparation for the work of the scientific engineer, i. e., through delay in establishing an aerodynamic laboratory, a waste of time and money, a decline of prestige, and an unnecessary sacrifice of human life has already resulted.

Students of aviation do not need to be informed of the practical necessity for aerodynamic laboratories. They have repeatedly pointed out, in aeronautical publications, the immense commercial advantages to be anticipated from the establishment of at least one in this country, and they have naturally expected that some philanthropic patriot of wealth and scientific interest would come to the rescue with a suitable endowment fund that would enable such work to be started in short order without Government aid. The fact that no patriot has responded is disappointing, in view of the large private donations that have done so much for aviation in France, but, in my opinion, it simply indicates something lacking in the manner of disseminating information concerning the importance of the subject. I am not willing to believe that our people will refuse to establish one when they are fully acquainted with the advantages to humanity and to sane industrial progress, and when a reasonable concrete propostion is advanced for their consideration. It is now my purpose to submit such a proposition, and, in doing so, I will follow briefly, in general outline, the ideas advanced in an address to the Fifth International Aeronautic Congress by one of the greatest authorities in the world, the Commandant Paul Renard, president of the International Aeronautic Commission.

A NATIONAL AERODYNAMIC LABORATORY.

Before considering the character of the work to be done and some details of the needed plant, it will facilitate matters to show what should not be done at such a laboratory.

There are those who dream of supplying the laboratory with all the instruments known to mechanics, to physics, and even to chemistry, in order to have a creditable and complete national institution. They would concentrate in one locality all the scientific instruments and acumen available, with the false idea that economy would result. This would be a grave error.

The financial resources, however great, are sure to be limited, and a too ambitious or a superfluous installation would squander the sources of power and indirectly menace the initiative of other industries. The character of the new work to be done demands that everything should be rejected that can be dispensed with readily in order that appliances specially needed in the new work may be provided and that these appliances be of the latest and most efficient types.

For the sake of economy, not only of money but of time and intellectual energy, tests and experiments that can be executed as well or better elsewhere by existing establishments should be avoided. For example, it is unnecessary to install a complete set of instruments and implements for testing the tensile strength of materials of their bending and crushing strength. Many other establishments permit of such work. If the laboratory be located in Washington, where certain advantages exist, such work could be readily done at the navy yard, where other facilities exist, such, for instance, as the testing of models for hydroaeroplanes and flying boats. The Bureau of Standards and Measures and other Government branches in Washington also offer facilities which it would not be wise to duplicate in such a laboratory.

I do not think that such an institution should be burdened with measuring the power of motors or preoccupied with the details of their performances. This may be done at various other Government establishments, and it is understood that the Automobile Club of America is also equipped for this work.

Nor is it necessary to have a complete chemical laboratory under the pretext of studying questions relating to the chemistry of fuel or the permeability of balloon envelopes.

I do not wish to convey the idea that an aerodynamic laboratory should be deprived entirely of such facilities and that it should be obliged to seek minor information from other establishments when that information may be more economically obtained by a duplicate plant on a small scale. Such duplicate conveniences, however, should be regarded as strictly accessory; but it should be well understood that whenever important researches can be prosecuted as well or better elsewhere, dependence should be placed on those other establishments where such work is a specialty.

TWO DISTINCT CLASSES OF WORK.

An aerodynamic laboratory should be devoted to (1) experimental verification, (2) experimental research. The first is concerned with testing the qualities of existing appliances, propellers, sustaining surfaces, control mechanism, etc. Usually these tests are made at the request of interested parties (as is now the case with water models at the navy-yard model basin). A constructor or a designer will bring, for example, a propeller and will wish to know its power or thrust at a given speed on the block or on a moving appliance under the conditions of flight, or he may bring several propellers to compare their performances and to ascertain what power they absorb at different speeds.

One of the very successful appliances devoted to this work at St. Cyr is a movable car, in which an aeroplane may be mounted and tested at speeds in perfect safety as to its strength, its efficiency, and the suitability of its control mechanism. This device is specially adapted to make actual service tests of sustaining surfaces, in other words, to try out in perfect safety the relative efficiencies of finished aeroplanes. It is a most important adjunct, as it supplements and rounds out the important research work on models in the closed laboratory.

Tests of this character, i. e., verification tests, constitute, so to speak, standard work. They are performed at the request of manufacturers, clubs, independent investigators, and other interested parties on condition of payment for the actual cost of the work. They therefore contribute to the support of the establishment.

The tests of verification, however, notwithstanding their great utility, do not constitute either the most important or the most interesting work of the laboratory. The research work, which prosecutes continuously and patiently systematic, thorough, and precise investigation of new ideas, or of old ideas with new applications, with the specific intention of discovering laws and formulas for advancing the progress of aerial navigation, is of greater importance, because it is the short cut to substantial efficiency, economy, improvement, and prestige.

This work is concerned with developing adequate methods of research in all branches of aerial navigation and in furnishing reliable information to all students, engineers, inventors, manufacturers, pilots, navigators, strategists, and statesmen. The knowledge thus gained should be disseminated regularly through publications, lectures, open-air demonstrations, and by exhibitions of apparatus, instruments, materials, and models—in fact, by all the facilities of the aerodrome, the showroom, the library, and the lecture room.

An exact knowledge of aerodynamics can best be acquired in such a laboratory by experimentation with standard scale models in air tunnels such as those used by M. Eiffel and others. In this way reliable data is obtained of the air resistance to be encountered and the efficiency at various velocities, the amount of lift, the effect of varying impact at different angles of attack on the stability—in fact, all the exact data which, reduced to curves and diagrams, enables the engineer to design a machine in a scientific manner. From such data the performance of a new machine can be closely predicated. The performance of the finished product can be verified later as before described.

Much of the research work will be prosecuted at the request of technical men outside of the institution, to whom the laboratory should offer, gratuitously as far as possible, its material and personal resources.

THE COUNCIL AND ORGANIZATION.

To obtain benefit from these researches it will be necessary to know that they are worth the time and expense, and a body of men—a council or a board of governors—should be authorized to accept or reject requests for this work. This will be a delicate task, but the principal duty of the council should be to establish and to correct from time to time a program of the research work to be executed by the director and his staff and to coordinate the work to the best advantages within the limits of the money available. The disbursement of the. Government funds, however, and the responsibility therefor should be entirely under the director.

With the actual state of aerial navigation and its deficiencies as a guide it will be the policy of the council to concentrate effort upon such points as seem most important, promising, and interesting for the time being.

I do not think there would be any doubt, if we had the laboratory in working order now, but that all questions relating to improvement in stability, automatic control, and safety in general would have the right of way.

The council or board, which in England is called the "advisory committee," should be representative of other Government departments than that employing the director, and should be independent of the director and his administrative staff. It might be possible for the director to act as a member of the council, and, if so, it would conduce to harmony and expedition.

The council should not be a large body, but should be composed mostly of specialists of unquestioned ability, men interested in the sane development of aerial navigation in various branches of the Government and in its useful and safe adaptation to commerce and sport.

Whatever the ability of this council it should not be allowed to pretend that it has a monopoly of aeronautic acumen. Many brilliant and worthy ideas may originate outside of the establishment which it will be wise to investigate. And to avoid any possibility of the council being charged with narrow prejudice, it is indispensable that it be not composed entirely of specialists. In a few words, it should comprise representative men who are also learned and technical men, with broad vision and reputation, whose presence will guarantee to industrial investigators that their ideas will be treated in an unpartisan or unbiased spirit. I will not attempt to suggest the composition of this council or board, but it is evident that the Army and Navy should each be adequately represented on it.

ENDOWMENTS, PRIZES, AND REWARDS.

If the laboratory should obtain, in addition to the funds required for prosecuting researches by its staff, any endowments of financial aid in excess of immediate needs (and I am confident it will eventually), it would accomplish useful work by offering prizes and granting rewards for important results achieved outside of the institution. The division of rewards would be one of the functions of the council, and it is possible that this would be one of the best uses of such resources, after the success of the laboratory is assured.

The complete rôle of an ideal aerodynamic laboratory can be summed up now in a few words in the natural order of establishment: (1) Execution of verification tests by means of nominal fees; (2) facilities to technical men for prosecuting original researches; (3) execution of researches in accordance with a program arranged by the council, and (4) reward of commendable results accomplished outside of the laboratory.

NATURE OF THE PLANT.

Researches and tests can be made on either a large or a small scale, preferably on both.

The use of small models can be made prolific in results because of the comparatively small cost, provided we understand the laws governing transformation into the full sized products. For model work a large plant is unnecessary. M. Eiffel has done very valuable work in a very small establishment.

Certain classes of tests with large models, such, for example, as the block test of propellers, do not require much space. But the conditions are altered when such tests are made on a machine in motion. These more difficult tests are absolutely indispensable and very important to the usefulness of an official laboratory.

Experiments and tests with small models being comparatively inexpensive, private establishments often undertake their execution, but when we attempt to draw conclusions from their results we are obliged to admit that the laws of comparison with full-sized machines are debatable the world over. Comparisons are sensibly true between small surfaces and larger surfaces that have been extended proportionately to the square of the linear dimensions, even to surfaces five or ten times larger, but when we pass to much larger surfaces, as we are obliged to, we are forced to adopt formulas with empirical coefficients, about which there is indefinite dispute.

The difficulty can be overcome only by precise experiments upon large surfaces, and such experiments, whatever the manner in which they are performed, will be costly. If privately executed, the financial returns would not cover the cost.

The laboratory should comprise, therefore, two distinct parts, one devoted to experiments on small-scale models and the other to experiments on surfaces of large dimensions. But in both parts precise and thorough work is necessary.

When we have studied separately each element of an aeroplane, for example, it will be necessary to test the complete apparatus. An aerodrome annex is therefore necessary, or, at least, the laboratory should be located in proximity to an aerodome of which it can make use. In order that the observations may not only be qualitative but quantitative, it will be necessary to follow all the movements of the complete machine to know at each instant the speed, the inclination, the thrust of the propellers, the effective horsepower, and, in fact, to conduct a true open-air laboratory for air craft after the manner of certain tests that have been prolific of results in France.

The English have established close relations between the royal aircraft factory and their laboratory, the function of the former being the reconstruction and repair of aeroplanes, the test of motors, and the instruction of mechanics.

LOCATION OF THE LABORATORY.

The location of the model-testing plant, the headquarters of the administration staff, requires comparatively small space, and there is no reason why it should be remote from a city or from intellectual and material resources. It is advantageous to have it easy of access to many interested people who are not attached to it.

The location of the open-air laboratory should obviously be at an aerodrome as near as may be convenient to the model-testing plant or headquarters. Close proximity of the two parts is desirable, but not necessary. The high price of land near a large city obliges the aerodrome annex of foreign plants to be located at a distance, but we are fortunate in having here at Washington ideal conditions for the location of both parts. The model laboratory should obviously be located on the site of Langley's notable work at the Smithsonian Institution, where the nucleus, an extensive library of records, and a certain collection of instruments, are still available. The National Museum is also an ideal location for the historical collection of models that will result.

No more ideal location for the annex, the open-air laboratory, or aerodrome exists in all the world than that afforded by the as yet undeveloped extension of Potomac Park. This is Government property which is of doubtful utility as a park only, but which would be of immense utility and interest as a park combined with a scientific plant of the character under consideration.

There is no reason why the public should be excluded from such a practice field, but there is much to recommend that it be open to the public under proper regulations as to the traffic, especially on occasion of certain tests or flights of an educational value. It is of sufficient area, about 1 square mile. It is about 2 miles long, is almost entirely surrounded by broad expanses of water, and, while convenient of access, is so situated that the public may be readily excluded when tests of a dangerous character are in process of execution. The fine driveways that will be required as a park will offer excellent facilities for the practice work of the aerodrome and for the moving test cars that should be supplied.

One of the most attractive features of this location is the advantage it offers as an ideal aerodrome for both the Army and the Navy, for both land and water flying, and the opportunity it affords for cooperation in all branches of the work of instruction and experimentation. Furthermore, it is near to the shop facilities of the navy yard, the accommodations of the Washington Barracks, the conveniences of the various Government hospitals, and it would doubtless add to the information and interest of the near-by War College Staff and the General Board of the Navy. Its location would enable our statesmen in Congress and a great number of officials in all departments to keep in touch at first hand with the progress of aeronautics, with the quality of the work done, and with the manner in which the money appropriated was being expended. The educational facilities afforded by the work and by the lectures would be invaluable to the course of instruction for Army, Navy, and civil students of aeronautics.

As Washington is a mecca for business people of all parts of the country, a laboratory located here would be convenient in a commercial sense, especially in view of its southerly location, which renders the open aerodrome available for use throughout the greater part of the year. The only objection that I can see to the Potomac Park extension is that the ground will require a considerable clearing, but the trees on the harbor side of the location would not necessarily require removal.

THE APPARATUS NEEDED.

It is useless to discuss here the various instruments and methods which have been a source of some dispute abroad. All have some good feature, but time has shown where some of the cumbersome and unnecessary installations may be eliminated to advantage and where others may be improved. The new plant of M. Eiffel, at Anteuil, may be regarded as a model for the wind tunnel and the aerodynamic balance. A duplicate of that plant alone would be of inestimable value. The last volume published by M. Eiffel is a forcible example of the value of his discoveries by this method with respect to the angle of incidence and the displacements of the center of pressure. It seems to merit the utmost confidence, although the details of his installation differ from those at Chalais, at Koutchino, at the Italian laboratory, and others. This method permits of testing the resistance of body structures, the sustaining power of surfaces, the tractive power of propellers, and the influence of transverse or oblique currents. If a "free drop" apparatus at uniform speed be regarded as indispensable to obtaining the coefficients of air resistance to solid bodies of different shapes, it is possible that the interior of the Washington Monument could be used to advantage, as was the Eiffel Tower, without disturbance of the main function of that noble structure. This would be an excellent place from which to observe the stability or action of falling models cast adrift at an altitude of 500 feet under varying atmospheric conditions. The free drop of full-sized models would of course require the use of kites or captive balloons.

The moving car previously referred to for tests of verification would be the most useful open-air plant and would soon repay the outlay required by the value of the information obtained from its use. A miniature duplicate of this method for preliminary tests on models with a wire trolley would be of value in a hall of large dimensions. It would be useful in winter work but not invaluable.

The track of the open-air vehicle at St. Cyr is too restricted to give the best results. The car can not circulate continuously at high speed and maintain the speed for a sufficient length of time. An ideal endless track may readily be arranged at the Potomac Park extension, preferably of rectangular form with rounded corners. A railway track would be preferable, but excellent results could be obtained from auto trucks run on macadamized roadbeds. Good results could be obtained by the use of suitable hydroaeroplanes or flying boats suitably equipped with instruments.

At the aerodrome annex ample facilities should be provided for measuring the wind velocity at various heights and at different points. The convenient installation of recording anemometers and the employment of kites or captive ballons should be considered.

A branch of the United States Weather Bureau could readily be established at the aerodrome here in connection with the investigation of meteorological phenomena affecting the movements of aeroplanes in flight and as an adjunct to the national laboratory.

Exactly measured bases and posts of observation are also required, as well as instruments of vision or photographic apparatus, to permit of following machines in their flights and of preserving the records for study.

One of the most useful installations for recording advanced information is an actual aeroplane itself equipped with instruments adapted to record, while in flight, much of the information that is desired. Such machines are already in use in France and in England.

It will be in perfect harmony and convenient to the laboratory to obtain all the services of an aircraft factory from the Washington Navy Yard, where facilities already exist for the reconstruction and repair of aeroplanes, the test of motors, and the instruction of mechanics. But this should not be allowed to interfere with our policy of relying upon private industry for the purchase of new machines, for the sake of encouraging the art among private builders.

It will suffice to merely mention the hangars or sheds required or the local accessories, such as drafting room, office, and minor repair shops. The character and location of these present no difficulties, but they should not be made the principal part of the institution as they are in several elaborately equipped foreign laboratories. The power plant, however, is a subject for careful consideration and the economy effected by M. Eiffel in his new installation at Anteuil is worthy of study.

COST.

I have seen estimates varying from $250,000 to $500,000 for such a plant, but inasmuch as $100,000, with an annuity of $3,000 donated by M. Henry Deutsch de la Meurthe to the University of Paris for the establishment of the aeronautical laboratory at St. Cyr, seems to have been sufficient for a very creditable though somewhat deficient plant, I will venture an opinion that $200,000 would be sufficient in our case. Although the same plant would cost more in this country, I assume that some of the buildings required are already available at the Smithsonian Institution. If located elsewhere the cost would be considerably more than the sum named.

A COMMISSION RECOMMENDED.

Inasmuch as more definite information regarding the actual cost of a dignified and creditable but modest and sufficient installation should be obtained and as the details of the plan, the scope, the organization, and the location of such an important undertaking should not be left to the recommendations of one man, *I respectfully recommend that a commission or board be appointed to consider and report to the President, for recommendation to Congress, on the necessity or desirability for the establishment of a national aerodynamic laboratory, and on its scope, its organization, the most suitable location for it, and the cost of its installation.*

W. IRVING CHAMBERS.

APPENDIX No. 2.

REPORT OF SUPERINTENDENT OF NAVAL OBSERVATORY.

BUREAU OF NAVIGATION,
Washington, D. C., October 30, 1912.

From: Superintendent, Naval Observatory.
To: Bureau of Navigation.

Subject: Report of the superintendent, Naval Observatory, for the fiscal year ending June 30, 1912.

1. Commodore T. E. De Witt Veeder, United States Navy (retired), was relieved as superintendent on October 16, 1911, by Capt. J. L. Jayne, United States Navy.

2. The observatory was represented at the Congrès Internationale des Éphémérides Astronomiques, held at the Observatory of Paris from October 23 to 26, 1911, by Prof. W. S. Eichelberger, United States Navy, director of the Nautical Almanac. The resolutions adopted by the congress were referred to a number of American astronomers, whose opinions were asked concerning certain special points, and they were informed that any suggestions that they might desire to make in connection with the adoption of the resolutions for the American Ephemeris and Nautical Almanac would be gladly received. Eighty-four replies were received, the consensus of opinion being favorable to the resolutions as a whole, but there were differences of opinion about details. With these replies before it the astronomical council, the superintendent presiding, considered Prof. Eichelberger's report with great care. The resulting departmental and congressional action will be found under the heading "Department of the Nautical Almanac."

3. Prof. Eichelberger visited the observatories at Bonn, Berlin, Pulkowa, and Greenwich, under orders from the Navy Department, after the adjournment of the Paris congress, and reported upon his observations for the benefit of this observatory.

4. Assistant G. H. Peters attended the meeting of the committee on asteroids of the Astronomical and Astrophysical Society of America at its meeting in Philadelphia, April 19, 1912, under orders from the Navy Department. As a result of Mr. Peters's report and the consideration given the subject at the observatory, the department has decided not to commit itself to any line of action in connection with asteroids until the completion of the test for accuracy of the photographic telescope which has been constructed at the observatory largely by him. Should this instrument prove as accurate as expected, it would seem desirable to cooperate with the committee in the work of finding asteroids and determining their orbits.

5. In addition to the regular monthly meetings of the astronomical council, it has been called in special session frequently to consider astronomical matters. Assistant Astronomer J. C. Hammond was made a member of it on May 13, 1912.

6. A board was appointed to study computing machines, with special reference to the kind of work done at the observatory and with a view to extending their use if any good results may be gained thereby. A multiplying machine has been bought on the recommendation of this board, and the purchase of other machines is under consideration. It is also intended to test a Hough printing chronograph.

7. The observatory is trying to develop what may be called nautical astronomy. The following quotations from a circular letter issued by the Navy Department, inviting officers to submit suggestions, will explain the nature of this work:

> With regard to nautical astronomy, the purpose is to increase the accuracy and ease with which the position at sea may be determined at any time from observations of heavenly bodies. It is intended that this line of investigation shall seek out new methods of applying astronomical and trigonometrical principles, by use of suitable tables or otherwise; to consider various suggestions that have been advanced in the past, but have not found general application, with a view to determining their practicability; and also to consider combinations of new methods with old ones.
>
> With regard to nautical instruments, it is proposed not only to improve the instruments themselves but also the methods of using them, embracing all kinds of instruments used by navigators.

The results accomplished up to date relate principally to improvements in instruments, as will be seen elsewhere in this report.

8. Advantage was taken of the presence of officers at the observatory for compass instruction to have them instructed in the use of astronomical instruments, particularly transit instruments. This instruction is considered as beneficial to them as navigators and of special value should they be detailed for survey work. One officer received special instruction during the year preliminary to detail on the Honduran survey. Some of the computers have been zealously working at night, without additional pay, to get experience as observers. In order to encourage them, Prof. M. Updegraff, United States Navy, was detailed to give instruction on the south transit instrument.

Department of Astronomical Observations.

Until September 20, 1911, the division of meridian instruments comprised the 9-inch and 6-inch transit circles and the 5-inch alt-azimuth instrument, with Prof. F. B. Littrell, United States Navy, in charge. On that date this division was discontinued and the division of 9-inch transit circle and 5-inch alt-azimuth instrument, and the division of the 6-inch transit circle established.

DIVISION OF 9-INCH TRANSIT CIRCLE AND 5-INCH ALT-AZIMUTH INSTRUMENT.

The personnel of this division consists of Prof. F. B. Littell, United States Navy, in charge, Assistant Astronomer H. R. Morgan, Assistant J. B. Eppes (since Jan. 2, 1912), and Assistant J. Pawling.

9-INCH TRANSIT CIRCLE.

This instrument was not used for observing until February, when regular observations of the sun, moon, planets, clock, and pole stars were resumed. The number of observations secured was as follows:

Clock stars	773
Pole stars	64
Stars for inclination of threads	63
Sun	61
Moon	53
Mercury	31
Neptune	7
Jupiter	14
Total	1,066

The number of determinations of instrumental constants was as follows:

Collimation	306
Level	308
Azimuth	305
Nadir	316
Total	1,235

A new registering head was made for the zenith distance micrometer by the Warner & Swasey Co. The screw, which was not repaired, was remeasured after the work was done, and its periodic errors which were given in the last annual report were found to be unchanged.

Four new microscope micrometers were made by the Warner & Swasey Co. and were received in September. They are provided with two sets of double threads two and one-half revolutions apart. Two of the screws were found to have considerable periodic errors, but these errors were easily reduced by hand grinding with a little rouge at the observatory. The final measures of the screws gave the following coefficients for the periodic errors:

	Cos U.	Sin U.	Cos 2U.	Sin 2U.
	″	″	″	″
I	0.00	+0.02	−0.01	+0.01
II	− .01	− .02	.00	.00
III	.00	− .01	.00	.00
IV	+ .05	+ .02	−.01	− .01

Two new oculars with reversing prisms were secured from C. A. Steinheil Söhne, one for the north collimator and one for the telescope micrometer. The latter gives a magnifying power of 200.

In December a new personal-equation apparatus was set up, the movable parts being at the focus of the north mark lens, the focal length of which is 380 feet. After some experimental work, the apparatus was modified in several essential details, and now seems to be giving excellent results. So far objects other than stars have not been experimented on.

In February a cellular screen for equalizing star magnitudes was attached in front of the object glass of the telescope. It consists of two sets of thin, brass, intermeshing slats at right angles to each other, supported by a ring, which is pivoted so as to turn on an axis inclined 45° to the planes of the slats. The ring can be tilted by turning a rod which extends to the eye end of the telescope and is provided with a graduated head. When the ring is tilted, both sets of slats come into action to cut off the light falling on the objective. The result is a diminution of the apparent magnitude of the star, as observed in the telescope, while at the same time there is a good distribution of light over the objective. For a faint star the spectral images formed are not noticeable with bright field illumination. For bright stars it is desirable to first reduce the apparent magnitude by means of the wire-gauze screens already attached to the instrument and to make the final adjustment by means of the equalizing screen. This screen permits the bringing of all stars, except those fainter than the standard selected, to the same apparent magnitude. The readings of the head may be utilized for determining differences of magnitudes.

A Nicol prism has been secured from Petitdidier, and some experiments have been made, indicating some gain in visibility of the pole stars in daylight by its use.

Among minor changes that have been made may be mentioned an improved setting microscope to facilitate setting the instrument, an improved method of illuminating the microscope heads, and alterations in the observing couch to render it more quickly adjustable to different positions.

In September the pivots were remeasured, the results agreeing fairly well with those of previous measures.

The positions and settings of more than half the intermediary stars of the northern hemisphere have been entered on cards preparatory to the work of observing those stars.

5-INCH ALT-AZIMUTH INSTRUMENT.

The zenith distance micrometer screw was measured with the Stackpole comparator for periodic and progressive errors, and it was found to have irregularities in its motion resulting in abnormal displacements, amounting to more than 1″. Upon investigation this was found to be due to looseness of the bearing head, and to remedy it a new screw with a bearing head of improved design was made by the Warner & Swasey Co. This was received in October. Measures of its periodic errors gave the following coefficients: +0″.004 Cos U +0″.017 Sin U +0″.003 Cos 2U +0″.001 Sin 2U.

The nine microscope micrometer screws were also measured, and several of them were considerably improved by grinding the bearings with a little rouge. The final measures gave the following coefficients for the four microscopes in use on the vertical circle:

	Cos U.	Sin U.	Cos 2U.	Sin 2U.
	″	″	″	″
A......	−0.04	0.00	−0.01	0.00
B......	+ .07	− .01	+ .01	− .02
C......	+ .12	+ .08	.00	.00
D......	− .05	− .05	+ .02	+ .01

A determination of the division errors of the degree lines of the vertical circle by the method of Bruns has been undertaken. The work was planned by Mr. Morgan and executed by Mr. Pawling. All the measures have been made, but the reductions have not been completed.

An investigation of the bisection errors with this instrument has been made with the aid of a reversing prism, using a single thread and bisecting the image of a stationary artificial star. A short list of stars was also observed on several nights with and without a reversing prism for the same purpose.

The observations 1898–1903 have been copied for the printer, and the collected results 1898–1907 are nearly ready for copying.

DIVISION OF 6-INCH TRANSIT CIRCLE.

The personnel of this division consists of Assistant Astronomer J. C. Hammond, in charge, Assistant Matt Frederickson, and Miscellaneous Computer David Rines.

Fundamental observations, which were begun on May 15, 1911, have been continued during the year in accordance with the approved plans.

The number of observations secured is as follows:

Clock stars	2,089
Pole stars, direct	333
Pole stars, reflected	116
Refraction stars	184
List stars	3,853
Inclination stars	473
Direct and reflected stars	91
Sun	165
Total	7,304

The number of determinations of instrumental constants is as follows:

Collimation	883
Level (spirit)	411
Level (nadir)	1,049
Marks	1,009
Nadirs	1,022
Runs	53
Flexure (horizontal)	18
Flexure (vertical)	3
Total	4,448

According to the original program.each list star is to be observed 16 times, and on this basis one-eighth of the work has been completed. Three observers were employed, whose duties also covered part of the reductions. The instrument was reversed 29 times and the stellar focus was adjusted 5 times during the year.

In December the trouble which has been experienced for several years in making reflected observations was remedied. The upper course of flooring along the rails which carry the reflecting basin was taken up and it was found that there was contact between the web of each rail and the lower course of flooring in many places. The ends of the boards in this lower course were cut off on both sides of and for the entire length of each rail. The ends of the rails on the north were also supported by two timbers extending from the concrete foundation to the rails and braced to the collimator and instrument piers. Tests showed a great improvement. Walking on the floor or any ordinary movements which the observer on the ladder may make no longer have any effect on the reflected images.

In January the plane mirror (4¼ by 6 inches) for use with the vertical collimator was tested by the Bureau of Standards. Their report states that "the errors of both surfaces are so large as to make a precise description of them valueless." It will be necessary to purchase a new mirror.

A personal-equation machine has been constructed and mounted on the pier of the south mark. With this apparatus, the absolute personal equations of the observers, their magnitude equation and their personal equations on such objects as the limbs of the sun and moon can be determined under conditions similar to those of actual observation.

An apparatus has been constructed to measure the inclination of the zenith distance threads which has hitherto been determined by observations of stars selected for this purpose. This apparatus consists essentially of a pendulum 26 inches long mounted on knife edges and carrying a brass bar 20 inches long. This bar is rigidly fixed to the top of the pendulum rod at right angles to the rod and also to the line joining the knife edges. The bar is pierced near the ends by two small holes to serve as artificial stars, and means are provided to rotate the whole in the plane of the horizon. It is to be mounted on the pier of the south mark and viewed through the lens for this mark. A hole for the reception of the pendulum has been drilled in the top of the mark pier.

CLOCK VAULT NO. 1.

The temperature in this clock vault has been maintained practically constant at 84° F. throughout the year. The range of temperature in the clock cases as shown by weekly readings has been 0.2° F. with the exceptions noted below:

On July 9 the temperature dropped 0.3° F., due to interruption in the electric service caused by a blown fuse.

During a cold period, lasting from January 5 to January 14, considerable trouble was caused by water freezing in the gas main shutting off the supply of gas to the heater. For part of this time the inner vault was kept as nearly as possible at the proper temperature by means of a small electric heater. This heater was not controlled by a thermostat, but was left burning continuously. The maximum drop of temperature during the period was 4° F.

A new gas heater for the vault exactly similar to the old one was installed on March 12.

Riefler clock No. 60 has been used as the standard clock throughout the year. Its rate, which has been kept large in order that the observations of the same star on different nights should come at different points of the break-circuit wheel, has been very satisfactory.

Riefler clock No. 70 was cleaned in November.

Riefler clock No. 151 was unsealed on May 6 in order to adjust the contact. It was immediately resealed.

DIVISION OF THE EQUATORIALS.

The personnel of this division consists of Prof. Asaph Hall, United States Navy, in charge; Assistant George H. Peters; Assistant J. B. Eppes (to Jan. 1, 1912); Assistant H. E. Burton; and Assistant C. B. Watts (from Jan. 2, 1912).

With the various instruments observations were obtained as follows:

26-INCH EQUATORIAL.

VI satellite of Jupiter	5
Satellites of Saturn	107
Satellites of Uranus	29
Satellite of Neptune	45
Satellites of Mars	27
Diameters of planets	25
Occultations of stars by the moon	13
Comets	16
Instrumental constants and position of the instrument	4
Arcs for micrometer screw	40
Positions of comparison stars	4
Asteroids	6

On account of the considerable southern declination of Jupiter it was necessary to look for satellite VI on a good many nights before five observations could be obtained. It is always a rather difficult object in the 26-inch. It is observed like an asteroid, with reference to stars of the Gesellschaft Catalogues.

The satellites of Saturn were combined by pairs according to the program which has been followed for some years at this observatory. The 107 observations include, therefore, the following combinations:

Mimas-Tethys	6
Mimas-Rhea	5
Enceladus-Tethys	11
Tethys-Dione	10
Tethys-Rhea	10
Dione-Rhea	10
Rhea-Titan	25
Titan-Iapetus	24
Titan-Hyperion	6

Whenever possible an eyepiece was used which was provided with a reversing prism.

Of the measures of the satellites of Uranus 8 were of Uranus-Titania, 11 of Uranus-Oberon, 4 of Umbriel-Titania, 4 of Umbriel-Oberon, 1 of Ariel-Oberon, and 1 of Ariel-Titania.

Ariel and Umbriel were too faint to be referred to the planet. It was necessary therefore to place Uranus behind an occulting strip and combine them with Titania or Oberon.

The satellites of Uranus were measured by bisecting the planet with a single wire and placing the satellite between a double wire. In the case of Ariel and Umbriel referred to Titania or Oberon, Ariel and Umbriel were placed between the double wire.

Usually the satellites of Uranus were too faint to be observed with a reversing-prism eyepiece.

The measures of Neptune's satellite were made with a single wire bisecting the disk of the planet and a single wire placed over the satellite. The double wires were not used.

Of the moons of Mars there were obtained 16 observations of Phobos with reference to the planet and 11 observations of Deimos. A pair of fixed wires having a distance apart a trifle less than the diameter of the planet was placed over the disk, being set so that the distances from the limbs to the wires should be equal. Distances of the satellites from the planet were measured in the direction of Mars' axis and perpendicular to that direction, the data for the position of the axis being taken from the British Nautical Almanac.

The outer satellite of Mars was very faint at this opposition. The inner one was not difficult, but could be measured only when its elongation from the planet was considerable.

For the observations of Phobos and Deimos a microscope cover glass was cemented to the eyepiece, so as to come as near as possible to the plane of the threads. Half the cover glass was smoked and Mars was placed behind the smoked portion.

A few measures were made with an eyepiece which had been employed at previous oppositions of Mars, having a semicircle of red glass near the wires with which the planet was covered.

Of the diameters of the planets 17 sets of measures were of Jupiter, 5 of Uranus, and 3 of Neptune.

Of the comets 4 observations were of 1911 b (Kiess), 7 of 1911 c (Brooks), 3 of 1911 f(Quenisset), and 2 of 1911 g (Beliawsky).

One observation was made of (451) Patientia, 2 of (246) Asporina, and 3 of (491) Carina.

Discussions of satellite observations have been completed as follows:

Satellites of Mars, measured in 1909.

Satellite of Neptune, opposition of 1910–11.

Satellites of Uranus, opposition of 1911.

A large modern filar micrometer of the highest grade has been ordered for the 26-inch equatorial from Messrs. C. L. Berger & Sons, of Boston, to be constructed by A. Repsold & Sons, of Hamburg, Germany. This instrument is to be of iron and steel, and is to have a printing device for the registration on a Morse fillet of the readings of the micrometer head.

12-INCH EQUATORIAL.

The following observations have been obtained:

Comets:	
1911 c (Brooks)	1
1911 f (Quenisset)	1
Asteroids:	
1911 (N. J.)	2
451 (Patientia)	1
Occultations of stars by the moon	15
Nova Geminorum:	
Determinations of position	3
Magnitudes	8

On Thursday evening of each week visitors have been shown through the 12-inch by Mr. Peters. Also a good many special nights have been given to schools and teachers. The number of persons admitted was 1,209, on 63 nights.

PHOTOHELIOGRAPH.

Photographs of the sun were taken with the photoheliograph on 136 days. Sun spots were found on 34 days. This is the year of sun spot minimum, which occurred according to our observations in February. During the year most of the spots have been small and evanescent, although several large groups have appeared.

For some months regular use has been made of one of the pair of astronomical photographic lenses of 10 inches aperture and 110 inches focal length, which were completed and mounted last year. One lens has not yet been put in adjustment.

A number of asteroids have been photographed, and the plates are being measured and reduced. It is intended to take up soon the adjustment of the second lens.

DIVISION OF THE PRIME VERTICAL TRANSIT INSTRUMENT.

This instrument has been in charge of Assistant Astronomer George A. Hill.

The prime vertical transit has remained in good order during the past year, and it has not been out of use for a day on account of needed repairs. The apparatus connected with it is also in good order. The series of observations that would cover a Metonic cycle has now been secured, but they will be continued until December 31, 1912, so as not to make a break in the groups being observed.

As stated in the last annual report, it was decided by the council, and approved by the superintendent, to bring this series to a close at the end of 1912. During the year observations were made on 124 nights, and 558 declinations secured.

There has been accumulated since the commencement of the series in 1893, 8,065 observations, and when it is recalled that each star is observed twice in two positions of the instrument, both over the east and the west vertical, the above is the equal of 32,260 observations made with a transit instrument.

Of the above, 1,837 complete declinations of α Lyrae have been obtained, which is without doubt the greatest number of declinations ever obtained of that star by one observer. This gives an average of 96.7 observations per year for the 19 years.

During the year the observations obtained in 1908–9 and 1910 have been completely reduced and checked. The observations are entered on printer's copy up to July 23, 1907. The observations made in 1911 are entered on reduction sheets to August 15.

DIVISION OF REDUCTION OF OBSERVATIONS IN ARREARS.

The division was in charge of Prof. W. S. Eichelberger, United States Navy, until September 20, 1911. Since that time it has been in charge of the executive committee.

The personnel of this division consists of Assistant Eleanor A. Lamson and Miscellaneous Computers Etta M. Eaton, J. T. Du Pree, jr., J. F. Ritt, and L. P. Steele.

REDUCTION OF 9-INCH TRANSIT CIRCLE WORK, 1903–1911.

The positions resulting from the preliminary reduction of these observations have been collected on cards. The declinations have been corrected for division error, variation of latitude, personal bisection errors, flexure, and preliminarily for errors of assumed latitude and constant of refraction.

In addition to the computing involved in the discussions by which the above corrections were evaluated, work has also been done on investigations relative to annual and diurnal periodic variations in the refraction.

About 800 pages of printer's copy of the journal publications of these observations have been completed, covering the period from September 3, 1903, to January 22, 1909.

REDUCTION OF 6-INCH TRANSIT CIRCLE WORK.

The work of this division has consisted in cooperating with the observers assigned to the instrument in reducing recent observations. The reduction of observations from May 15, 1911, to March 17, 1912, has been completed in declination through reduced declination and is well advanced in right ascension. These observations number about 6,000.

REDUCTIONS OF ALT-AZIMUTH WORK.

The declinations resulting from the observations, 1898–1903, have been completed, the results collected on cards, and the printer's copy has been made.

Systematic corrections dependent upon the observer and upon the position of the circle have been applied to the observations, 1898–1907.

REDUCTION OF PRIME VERTICAL WORK.

The reduction of the observations for the years 1907–1910 has been completed.

DEPARTMENT OF THE NAUTICAL ALMANAC.

The Almanac has continued under the direction of Prof. W. S. Eichelberger, United States Navy.

The American Ephemeris and Nautical Almanac for the year 1914 was received from the printer on February 27.

The preparation of the American Ephemeris and Nautical Almanac for the year 1915 is well advanced.

The naval appropriation bill approved August 22, 1912, contained the following:

> The Secretary of the Navy is hereby authorized to arrange for the exchange of data with such foreign almanac offices as he may from time to time deem desirable, with a view to reducing the amount of duplication of work in preparing the different national nautical and astronomical almanacs and increasing the total data which may be of use to navigators and astronomers available for publication in the American Ephemeris and Nautical Almanac: *Provided*, That any such arrangement shall be terminable on one year's notice: *Provided further*, That the work of the Nautical Almanac Office during the continuance of any such arrangement shall be conducted so that in case of emergency the

entire portion of the work intended for the use of navigators may be computed by the force employed by that office, and without any foreign cooperation whatsoever: *Provided further*, That any employee of the Nautical Almanac Office who may be authorized in any annual appropriation bill and whose services in whole or in part can be spared from the duty of preparing for publication the annual volumes of the American Ephemeris and Nautical Almanac may be employed by said office in the duty of improving the tables of the planets, moon, and stars, to be used in preparing for publication the annual volumes of the office: *Provided further*, That section four hundred and thirty-five, Revised Statutes, is hereby repealed.

In accordance with the authority granted by Congress, the department has expressed its willingness to adopt the program of exchanges of data recommended by the International Congress at Paris, October, 1911, with the understanding that the proposed agreement shall be terminable on one year's notice and with the following conditions:

(*a*) That in adopting the resolution, "the ordinary ephemerides of the stars will hereafter be calculated to $0^s.001$ nearly in R. A. to 60° of declination and $0''.01$ nearly in declination, not for every tenth day but for every tenth culmination for the meridian of Greenwich * * *," the department is not committed to the printing of the extra decimals in right ascension and declination, nor to the exclusive use of the Greenwich meridian in the American Ephemeris and Nautical Almanac.

(*b*) With reference to the resolution, "the predictions of the eclipses and occultations will be made with every possible precision," it is understood that the data with regard to eclipses and occultations will be furnished with the same degree of precision as now published in the American Ephemeris and Nautical Almanac.

(*c*) With regard to the meridian of Greenwich and the resolution, "The conference expresses the wish that the adoption of the meridian of Greenwich for all the ephemerides be realized as soon as possible," the department accepts this resolution in spirit but with certain reservations. The American Ephemeris and Nautical Almanac has from the beginning used that meridian for nautical purposes, but on account of the remoteness of the American Continent from it and the fact that the Naval Observatory and other observatories near its meridian are extensive users of the star places published by the American Ephemeris and Nautical Almanac, the department deems it expedient to reserve the right to publish certain ephemerides for the meridian of Washington.

The plan of exchanges will give this office more time to devote to the work of original research and investigation.

It is interesting to note that the congress put its stamp of approval on past work of this office by adopting the list of stars of the Astronomical Papers of the American Ephemeris, Volume VIII, part 3, for the predictions of occultations, and prescribing the tables of Newcomb and Hill for calculations of the positions of the sun and planets for all the ephemerides except the calculations made by the Connaissance des Temps.

It is proposed to make the following changes in the American Ephemeris and Nautical Almanac beginning with the edition of 1916:

In the apparent places of the stars that the right ascension of all stars between +60° and −60° declination be given to $0^s.001$ and that the declination of all stars be given to $0''.01$.

That the mean errors, pages 511–517, edition of 1914, be omitted.

That in the elements for the prediction of occultations, the time of conjunction in right ascension be given in Greenwich mean time.

That in the ephemerides for the physical observations of the sun, moon, and planets and in the satellite data, Greenwich mean time be used.

That the phenomena be published in Greenwich mean time.

The expenditure of the piecework fund of $7,000 for pay of computers on piecework for the fiscal year ending June 30, 1912, is as follows:

Name.	Work done.		Compensation.
Wm. Auhagen	Ephemeris of Neptune for 1915	$65.00	
	Moon's longitude, latitude, and Hor. Par., 1916	425.00	
	Moon's longitude, latitude, and Hor. Par., 1917	1,125.00	
			$1,615.00
E. B. Davis	Ephemeris of the sun for 1916		750.00
A. Doolittle	Ephemerides of the fixed stars, 1915		150.00
H. B. Evans	Satellite diagrams for 1915	$22.00	
	Eclipse elements and charts for 1915	357.50	
	Special eclipse work	20.50	
			400.00
H. B. Hedrick	Ephemeris of Jupiter for 1915		140.00
H. F. M. Hedrick	Moon culminations for 1914	225.00	
	Moon culminations for 1915	450.00	
			675.00
L. Lindsey	Ephemerides of the fixed stars, 1914	323.00	
	Ephemerides of the fixed stars, 1915	175.00	
			498.00
J. McWilliam	Occultations for 1914	393.65	
	Oocultations for 1915	340.40	
			734.05
G. B. Merriman	Ephemerides of the satellites, 1915		500.00
A. Newton	Occultations for 1915	$83.30	
	Ephemeris of Venus for 1916	7.65	
	Physical observations of the sun, moon, and planets	59.50	
	Secular variations of the planets	35.70	
	Arranging computing blanks	35.70	
	Defective illumination of the moon	22.10	
			243.95
F. E. Ross	Ephemeris of Mercury for 1915	611.00	
	Ephemeris of Venus for 1915	400.00	
	Reading proof of Astr. Papers, Vol. IX, pt. 1	34.00	
			1,045.00
T. E. Trott	Ephemerides of the fixed stars, 1915		249.00
	Total		7,000.00

An investigation of the orbits of Saturn's satellites has been commenced during the present year. The work in hand consists of a discussion of the more than 2,000 observations secured at the United States Naval Observatory during the years 1894–1907, and published in Volume VI, Publications of the United States Naval Observatory, second series.

DEPARTMENT OF COMPASSES, CHRONOMETERS, AND OTHER NAUTICAL AND SURVEYING INSTRUMENTS.

PERSONNEL.

On July 31, 1911, Lieut. Commander J. H. Sypher, United States Navy, was relieved as head of the department of compasses, chronometers, and other nautical and surveying instruments, by Lieut. Commander Edward McCauley, jr., United States Navy, at that time in charge of the department of chronometers and time service. The two departments were then combined under one head and called the department of compasses, nautical instruments, and time service, and Lieut. Commander McCauley, placed in charge, with Lieut. Commander C. R. Miller, United States Navy, who reported on July 18, 1911, as assistant and in charge of the compass office.

On September 16, 1911, Prof. G. K. Calhoun, United States Navy, was detached from the time service.

On April 22, 1912, Lieut. Commander C. T. Owens, United States Navy, reported as the relief of Lieut. Commander Miller, who was detached on April 30, 1912.

COMPASS OFFICE.

The stock of articles pertaining to compass outfits has been kept up at the various navy yards sufficient to supply the needs of vessels in service and to equip new vessels delivered during the year, but no large surplus has been accumulated.

The question of developing a better azimuth circle than the present Type III is being studied and different models tried. It is desired to develop an instrument which will be interchangeable on the compass and pelorus and be suitable for taking bearings of distant terrestrial objects and azimuths of stars as well as of the sun.

Two experimental Type VII binnacles and compasses have been tried on the *Florida* and *Utah*, respectively. Both are designed for illumination of the compass card from below. A report has been received from a board of officers appointed by the commander in chief of the United States Atlantic Fleet in regard to the adoption of a standard type for the Navy involving this type of illumination. The various recommendations of the board have been taken up and plans are being prepared at the navy yard, New York, for a standard Type VII binnacle. It is expected that these plans will be completed at an early date.

During the past year the development of the Sperry gyrocompass has continued and many improvements have been made in design and workmanship. A special testing apparatus has been installed at the navy yard, New York, where each set is given a most thorough test before being installed on board ship. The following ships are now supplied with gyrocompass sets: Battleships *Utah*, *North Dakota*, *Delaware*, *Florida*, *Michigan*, and *Arkansas*, and submarines *E-1* and *E-2*. Ten additional gyrocompass sets have been ordered and the first of these sets is now being tested at the navy yard, New York. These will be installed as soon as possible after delivery, on battleships and submarines which have been designated.

In regard to the present status of the gyrocompass as a battle compass, it may be stated that it has come to stay. As is generally the case with a new device there have been many faults and defects to overcome, but these have never been of such a character as to throw doubt upon the ultimate perfection of the instrument, and each set delivered is an improvement over the one preceding it. The specifications for the 10 new sets have been drawn with a special view to remedying the defects existing in the earlier ones, and they will be subjected to the most rigid tests before acceptance. In the meantime the contractors are required during the first year after acceptance of a set to make good any defects and imperfections developing which are clearly due to defective design, material or workmanship, and the earlier sets delivered are therefore now in much more efficient shape than when first installed on board ship.

Recent reports from ships indicate that already this compass is being used for every-day navigation purposes, although always checked by the magnetic compass. In the present state of development, however, it is not considered wise to do away with any part of the magnetic compass equipment of ships having gyrocompasses.

Owing to the development of the gyrocompass the projection compasses are not to be installed on the *Arkansas*, *Wyoming*, and later ships, as was originally planned.

The routine duties of the compass office have been continued during the year, consisting in general of the following:—

(*a*) Compass office tests and inspections of compass parts such as needles, jewels, pivots, and cards, and of magnet correctors.

(*b*) Scrutinizing and filing compass reports from ships.

(*c*) Scrutinizing requisitions and surveys from ships for action pertaining to compass outfits.

(*d*) Scrutinizing numerous reports regarding maneuvering and navigational features of ships.

(*e*) Consulting with representatives of Bureau of Construction and Repair in regard to designs of new ships.

(*f*) Instruction of officers in course of compass instruction.

CHRONOMETERS AND TIME SERVICE.

The usual trial of chronometers and torpedo-boat watches commenced January 9, 1912, and was completed June 17, 1912. One hundred chronometers and 56 torpedo-boat watches were entered in the trial. Fifty chronometers were new ones offered by the makers, of which 33 were recommended for purchase, and 50 torpedo-boat watches, of which 7 were recommended for purchase. The remaining 50 chronometers and 6 torpedo-boat watches belong to the Government and were entered for trial after being cleaned and repaired.

The accompanying tabular statements, Tables I, II, and III, give the data for those chronometers and torpedo-boat watches which attained a trial number of 25 or less in the trial.

For the first time in the history of the observatory some torpedo-boat watches of American manufacture were submitted for trial. These watches failed to pass, but it is worthy of note that the interest of American manufacturers has at last been awakened in this direction.

The department has continued to purchase all chronometers and torpedo-boat watches offered by the makers which pass the required test. The supply of chronometers continues to be adequate, but owing to the small number of torpedo-boat watches which passed the trial the supply of these watches will not be sufficient for the demands of the coming year, especially should emergency arise. Unfortunately there has been no trial of new torpedo-boat watches since 1908. This fact not only did not increase the number of torpedo-boat watches on hand for issue to the service, but apparently gave the makers of such watches no incentive for continuing their manufacture.

After careful investigation and consideration the restriction heretofore imposed on the use of hairsprings made of palladium in the chronometers submitted for trial and purchase has been removed and chronometers having palladium springs will be admitted to the next trial. The specifications have been changed and the makers so informed.

The usual work in the rating and issue of chronometers and torpedo-boat watches and the purchase, trial, and issue of deck clocks, and comparing and stop watches has been proceeded with as heretofore. A new and less expensive form of deck clock, called deck clock No. 3, has been adopted for issue for use in the service under conditions where the higher grades of clocks are not needed.

The daily noon time signal was sent out as usual. The mean daily error of the noon signal for the year was 0.05 second and the maximum error was 0.35 second.

The noon signal has been transmitted by radiotelegraphy to ships at sea since January, 1905, and it is believed that this observatory is the first by over two years to have its time regularly transmitted in this way. With the completion of the Navy's powerful radio station at Arlington it is expected that ships will be able to receive the time signals throughout a very large area of the North Atlantic Ocean, the Caribbean Sea, and the Gulf of Mexico. It is interesting to note that many jewelers in various parts of the country are expecting to use the radio time signals from the Arlington Station. One writer states that he has received radio signals from the navy yards at Charlestown, Mass., and Portsmouth, N. H., for some months, and "that there are probably at least 10,000 jewelers who will depend on radio signals." Thus the public service rendered by the Navy will find a new and unexpected means of reaching the people.

The observatory is planning the use of radio signals via the Arlington Station for the establishment of differences of longitude.

At the request of the Hydrographic Office, night telegraphic time signals were successfully interchanged with temporary observatories at Habana, Cuba, and at Manzanillo, Cuba, from April 1, 1912, to April 15, 1912, inclusive. These signals were for the establishment of the longitude of those two places, and were transmitted over direct wires and through the courtesy and cooperation of the Western Union Telegraph Co.

NAUTICAL INSTRUMENTS.

The supply of nautical instruments has been kept up to allow for all demands from vessels and from navy yards. These instruments have included those purchased by and furnished from the Naval Observatory for navigation, surveying, and aviation under the Navy Department, for the Lighthouse Service under the Department of Commerce and Labor, and for the Revenue-Cutter Service under the Treasury Department.

Instructions have been issued that nautical instruments usually sent to the Naval Observatory from the navy yards at Mare Island, Puget Sound, and Cavite for repair be repaired, whenever possible, by contract on the Pacific coast. This should effect a considerable saving in shipping charges.

In endeavoring to improve nautical instruments the following has been tried or arrangements have been made for trial:

Several new and improved forms of sextants. The improvements include a form of "endless" tangent screw, electric attachment for reading scale at night, and telescope for night work.

Blish prism, invented by Commander John Blish, United States Navy, retired.

Short base range finders for navigation. A special attachment to standard pelorus for mounting range finder for obtaining simultaneous bearing and range.

Lawless stellar compass; also the development of this instrument by French into one for more accurately solving the spherical triangle.

Lietz sounding machine, with electric motor attached for reeling in.

Universal drafting machine.

Several models of three-arm protractors using transparent material.

A "compass rule," invented by Lieut. A. C. Kail, United States Navy.

Triangles, parallel rulers, protractors of xylonite, or other transparent material.

A three-section parallel ruler.

Barocyclonometer of Father Algué adapted to the North Atlantic Ocean.

Gyroscopic artificial horizon.

Position plotter and course indicator by Capt. R. C. Smith, United States Navy.

Much attention is being given to the selection and inspection of optical instruments.

Directions for use of compensating binnacles are being revised and will be issued at an early date.

A method of compass correction by Lieut. R. A. Koch, United States Navy, is being tried.

GENERAL STOREKEEPER.

Professor of Mathematics M. Updegraff, United States Navy, was general storekeeper up to January 25, 1912, when he was relieved by Lieut. Commander E. McCauley, jr., United States Navy.

The following is a brief summary of the work of this department during the fiscal year:

Value of stock on hand July 1, 1911	$106,022.61
Value of instruments, etc., purchased	$24,010.24
Value of articles received from navy yards, etc	$39,734.33
Value of articles issued	$72,493.47
Value of stock on hand June 30, 1912	$97,273.71
Number of shipments made	560
Number of instruments, etc., shipped	2,921

THE LIBRARY.

Mr. W. D. Horigan continued as librarian throughout the year.

Contents of library.

	Volumes.	Pamphlets.	Total.
Contents of library July 1, 1911	26,403	5,261	31,664
Accessions:			
By purchase	116	3	119
Through exchange	167	95	262
Copyright duplicates transferred from Library of Congress	164	2	166
Contents July 1, 1912	26,850	5,361	32,211

DISTRIBUTION OF PUBLICATIONS.

The following publications have been received from the Public Printer:

	Copies.
Synopsis of the Report of the Superintendent, 1911	1,000
American Ephemeris, 1912	300
American Ephemeris, 1914	1,300
American Nautical Almanac, 1912	150
American Nautical Almanac, 1914	600

There were distributed 7,221 copies of the various publications of the institution. Of these, 3,877 were published by the Astronomical Department and 3,344 by the Nautical Almanac.

BUILDINGS, GROUNDS, AND ROADS.

The buildings, grounds, and roads are in good condition. The macadamizing of the road in Observatory Lane was completed. A few trees were blown down by high winds, and some were treated by experts in order to preserve them.

The heating system of the observatory has been carefully studied and changes have been made with a view to producing economy.

During the very cold weather last winter the gas main which leads to the observatory from Wisconsin Avenue was stopped up by reason of water freezing in it at a low point in Observatory Lane. This caused a drop in the temperature in the clock vault, which depends upon gas for heat, and, while the measures taken at the time prevented any serious trouble, as shown elsewhere, a new main has been installed, connecting with the large main in Massachusetts Avenue, to prevent a recurrence of this trouble.

J. L. JAYNE.

TABLE I.—*Tabular statement of data of new American chronometers with steel hairsprings and ordinary balances (Specification No. 18C7, Feb. 19, 1910), United States Naval Observatory, Washington, D. C., Jan. 9 to June 17, 1912.*

[NOTE.—The signs are astronomical, + losing; − gaining. Data of chronometers with trial number greater than 25 omitted.]

								Temperature room trial, mean daily rates. (Orientation of chronometers not changed.)										Chronometer room. (Orientation changed for polarity test, one week on N., S., E., and W.)									
Temperature, by thermometer........degrees F..								89°.9	85°.0	70°.0	55°.0	50°.2	50°.0	55°.0	70°.0	85°.0	98°.0	67°.2	68°.6	68°.6	68°.4	69°.7	66°.8	69°.6	72°.0	72°.6	70°.1
Relative humidity, by sling psychrometer, per cent....................................								25	43	36	40	52	52	51	58	48	48	57	53	43	45	49	53	58	57	51	55
Order of merit.	Balance: o=ordinary. v=invar. Hairspring: s=steel.			Trial number.	Point of compensation.			Jan. 9 to Jan. 16.	Jan. 18 to Jan. 25.	Jan. 27 to Feb. 3.	Feb. 5 to Feb. 12.	Feb. 14 to Feb. 21.	Feb. 21 to Feb. 28.	Mar. 1 to Mar. 8.	Mar. 11 to Mar. 18.	Mar. 20 to Mar. 27.	Mar. 29 to Apr. 5.	Apr. 8 to Apr. 15.	Apr. 15 to Apr. 22.	Apr. 22 to Apr. 29.	Apr. 29 to May 6.	May 6 to May 13.	May 13 to May 20.	May 20 to May 27.	May 27 to June 3.	June 3 to June 10.	June 10 to June 17.
					Temperature.	Rate.	Temperature constant.																				
					°	s	s	s	s		s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s
1	Bliss..	3109	v.s.	6.74	82.1	+1.35	−.00102	+1.09	+1.44	+1.14	+0.56	+0.29	+0.41	+0.63	+1.26	+1.24	+1.30	+1.41	+1.74	+1.50	+1.46	+1.69	+1.60	+1.89	+1.90	+1.76	+1.53
2	Negus.	2118	o.s.	6.77	41.5	−2.65	+.00011	−2.01	−2.51	−2.64	−2.70	−2.53	−2.50	−2.56	−2.49	−2.36	−2.64	−2.60	−2.59	−2.70	−2.76	−2.84	−2.74	−3.00	−2.99	−3.01	−3.26
3	Negus.	2137	o.s.	6.86	79.8	+0.19	+.00073	+0.30	+0.19	+0.10	+0.57	+1.00	+1.03	+0.70	+0.43	+0.23	+0.09	−0.04	+0.29	+0.04	−0.23	−0.07	−0.09	+0.24	+0.23	+0.06	−0.14
4	Bliss..	3122	v.s.	7.46	85.8	+0.70	−.00080	+0.63	+0.79	+0.74	−0.13	−0.16	−0.03	0.00	+0.26	+0.61	+0.57	+0.57	+0.71	+0.34	+0.36	+0.44	+0.47	+0.54	+0.61	+0.64	+0.57
5	Negus.	2144	o.s.	7.99	190.0	−2.49	−.00004	−2.63	−2.80	−3.20	−3.20	−2.90	−2.91	−3.40	−3.06	−3.16	−3.46	−3.91	−3.96	−4.29	−4.03	−4.03	−4.24	−4.00	−3.87	−3.81	−4.06
6	Bliss..	3094	v.s.	8.94	69.4	−1.22	−.00155	−1.71	−1.64	−1.39	−1.71	−1.61	−1.56	−1.36	−1.04	−1.56	−1.80	−1.09	−1.06	−1.27	−1.27	−1.19	−1.20	−1.10	−1.40	−1.59	−1.69
7	Negus.	2132	o.s.	9.47	76.5	+2.21	+.00095	+2.46	+2.39	+2.59	+2.90	+3.04	+2.57	+2.40	+1.91	+2.16	+2.29	+2.80	+2.40	+2.66	+2.64	+2.54	+2.71	+2.43	+2.50	+2.56	+2.49
8	Bliss..	3116	v.s.	9.62	78.7	−0.72	−.00056	−0.49	−0.86	−0.90	−1.19	−1.29	−1.24	−0.87	−0.63	−0.61	−0.67	−1.16	−0.96	−0.77	−0.76	−0.76	−0.57	−0.37	−0.34	−0.49	−0.43
9	Bliss..	3087	o.s.	10.88	60.2	−1.93	+.00102	−0.71	−1.13	−1.76	−1.93	−1.99	−1.53	−1.86	−1.90	−1.47	−1.39	−2.16	−2.30	−2.17	−2.20	−2.26	−2.00	−1.84	−2.29	−2.40	−2.61
10	Bliss..	3112	v.s.	11.45	66.2	+1.17	−.00159	+0.37	+0.61	+1.00	+0.73	+0.84	+1.11	+1.21	+1.30	+0.61	+0.40	+1.19	+1.56	+1.29	+1.23	+1.43	+1.53	+1.77	+1.67	+1.70	+1.67
11	Bliss..	3088	o.s.	11.49	0.6	−3.33	+.00036	−0.07	−0.67	−1.56	−2.37	−1.97	−1.93	−2.19	−1.67	−0.94	−0.37	−1.49	−1.43	−1.53	−1.66	−1.59	−1.61	−1.63	−1.34	−1.17	−1.34
12	Bliss..	3119	v.s.	12.08	70.8	+0.68	−.00104	+0.47	+0.73	+0.76	+0.51	+0.61	+0.41	+0.33	+0.59	+0.21	+0.94	+1.76	+1.56	+1.07	+1.01	+1.11	+1.17	+1.27	+1.11	+1.11	+0.99
13	Bliss..	3115	v.s.	12.88	58.7	+2.55	−.00105	+1.67	+1.66	+2.00	+2.37	+2.53	+2.53	+2.70	+2.84	+2.00	+1.47	+2.84	+3.17	+3.03	+3.00	+3.23	+3.26	+3.33	+3.21	+3.07	+3.11
14	Bliss..	3113	v.s.	13.15	83.5	+0.14	−.00056	+0.13	+0.26	−0.20	−0.61	−0.37	−0.14	−0.01	+0.29	+0.03	−0.29	+0.47	+0.61	+0.29	−0.23	+0.16	+0.06	+0.13	+0.13	+0.09	+0.07
15	Bliss..	3077	v.s.	13.62	86.1	+1.16	−.00105	+0.66	+1.00	+0.60	−0.04	−0.10	+0.06	+0.33	+1.16	+1.30	+1.21	+1.10	+0.86	+0.89	+1.10	+0.93	+0.69	+1.23	+1.30	+1.26	+1.39
16	Bliss..	3085	o.s.	13.92	64.4	−0.41	+.00158	+1.13	+0.56	−0.29	−0.40	+0.23	+0.26	−0.14	−0.43	−0.04	+0.26	−0.39	−0.44	−0.44	−0.61	−0.89	−0.80	−0.69	−0.79	−0.80	−0.70
17	Negus.	2139	o.s.	14.02	72.5	−0.58	+.00053	+0.17	−0.13	−0.49	−0.13	−0.34	−0.61	−0.71	−0.66	−0.87	−0.73	−0.41	−0.86	−1.09	−1.06	−0.56	−1.00	−0.64	−0.90	−0.76	−0.97
18	Bliss..	3114	v.s.	15.28	77.0	−0.84	−.00067	+0.03	−0.61	−1.03	−1.54	−1.24	−0.86	−0.77	−0.71	−1.14	−0.94	−1.14	−1.07	−1.07	−1.04	−1.03	−0.93	−0.81	−1.06	−0.73	−0.79
19	Negus.	2147	o.s.	15.42	48.6	−1.91	+.00062	−0.49	−0.91	−1.64	−1.79	−1.53	−1.47	−1.97	−1.59	−1.26	−1.41	−2.13	−1.91	−2.23	−2.46	−2.01	−2.27	−1.83	−1.43	−1.61	−1.73
20	Bliss..	3121	v.s.	15.75	60.6	+1.09	−.00105	+0.13	+0.50	+1.21	+1.53	+1.49	+0.93	+0.60	+0.79	+0.44	+0.13	+1.11	+1.31	+0.73	+0.80	+0.67	+0.73	+1.03	+0.90	+0.84	+0.73
21	Negus.	2142	o.s.	15.83	85.8	−2.64	−.00040	−2.84	−2.50	−2.63	−2.90	−2.41	−2.74	−3.13	−2.84	−2.79	−3.03	−2.80	−2.46	−2.86	−3.11	−2.47	−2.89	−2.36	−2.33	−3.10	−3.10
22	Bliss..	3117	v.s.	16.62	68.3	+0.96	−.00149	0.00	+0.24	+0.51	+0.50	+0.74	+0.83	+0.89	+1.41	+0.86	+0.83	+1.30	+1.49	+1.11	+1.19	+1.21	+1.23	+1.54	+1.44	+1.36	+1.33
23	Bliss..	3070	o.s.	17.61	61.9	−1.54	+.00237	+0.19	−0.41	−1.71	−1.61	−1.23	−1.13	−1.23	−1.04	−0.13	+0.24	−1.27	−1.33	−1.61	−1.73	−1.57	−1.69	−1.34	−1.30	−1.39	−1.63
24	Bliss..	3054	v.s.	18.08	78.5	+1.14	−.00221	+1.00	+1.21	+1.16	−0.11	−0.34	−0.19	−0.04	+0.80	+0.89	+0.64	+1.14	+1.33	+1.26	+1.37	+1.53	+1.64	+2.04	+1.77	+1.73	+1.64
25	Negus.	2149	o.s.	18.35	64.9	+2.36	+.00138	+2.90	+3.11	+2.33	+2.83	+3.56	+2.74	+2.16	+2.47	+2.73	+2.74	+2.61	+2.53	+2.03	+2.03	+2.26	+1.76	+2.19	+2.31	+2.23	+2.16
26	Bliss..	3118	v.s.	18.48	72.9	+0.51	−.00160	+1.04	+0.26	+0.83	−0.03	+0.04	+0.33	+0.03	+0.17	+0.31	−0.61	+0.24	+0.33	+0.49	+0.71	+0.63	+0.74	+0.57	+0.79	+0.63	+0.49
27	Negus.	2128	o.s.	18.76	62.5	+1.84	+.00027	+1.96	+1.97	+1.69	+1.89	+2.10	+1.83	+1.83	+2.04	+1.99	+2.21	+1.76	+1.64	+2.36	+2.97	+2.81	+2.79	+2.17	+2.31	+2.47	+2.37
28	Bond .	605	.....	20.57	59.7	−0.71	+.00288	+1.71	+1.09	−0.66	−0.80	−0.27	−0.47	−0.47	−0.13	+1.20	+1.89	−0.67	−0.53	−0.80	−0.96	−0.71	−0.90	−0.59	−0.47	−0.57	−0.86
29	Negus.	2153	o.s.	22.65	96.4	−1.68	−.00051	−1.53	−1.10	−1.96	−2.27	−2.63	−2.30	−2.84	−2.13	−2.40	−2.46	−2.44	−2.49	−2.50	−2.61	−2.56	−2.41	−2.39	−2.39	−2.60	−2.61

30	Bliss..	3052	v. s.	23.41	79.9	+0.92	−.00178	+0.93	+0.80	+0.27	−0.60	−0.93	−0.29	+0.23	+1.23	+0.97	+0.69	+0.33	+0.56	+0.24	+0.23	+0.61	+0.44	+0.93	+0.67	+0.44	+0.49
31	Negus.	2148	o. s.	25.00 A	73.5	+0.22	+.00100	+1.41	+0.79	+0.40	+0.84	+0.89	+0.97	+0.29	+0.06	−0.09	−0.23	−0.10	+0.76	+0.54	+0.54	+0.39	+0.11	−0.10	−0.24	−0.43	−0.30
32	Bond .	624	.....	25.00 A	62.8	+0.09	+.00256	+2.80	+1.89	+0.47	+0.46	+0.53	+0.41	+0.06	−0.04	+0.81	+1.76	+0.77	+0.99	+1.23	+1.01	+0.87	+0.81	+0.86	+0.79	+0.87	+0.90
33	Negus.	2145	o. s.	25.00 A	35.5	+1.36	+.00022	+2.16	+2.40	+1.81	+1.59	+1.79	+1.71	+1.29	+1.44	+1.40	+1.43	+1.51	+1.63	+0.81	+1.20	+1.04	+1.11	+0.61	−0.17	−0.21	+0.47

TABLE II.—*Tabular statement of data of trial of new torpedo-boat watches (Specifications No. 18W4, November 20, 1908), United States Naval Observatory, Washington, D. C., January 9 to June 17, 1912.*

[NOTE.—The signs are astronomical, + losing; − gaining. Data of watches, with trial number greater than 25 omitted.]

								Temperature room trial, mean daily rates. (Orientation of watches not changed.)										Chronometer room. (Orientation changed for polarity test, one week on N., S., E., and W.)									
Temperature, by thermometer........degrees F..								89°.9	85°.0	70°.0	55°.0	50°.2	50°.0	55°.0	70°.0	85°.0	90°.0	67°.2	68°.6	68°.6	68°.4	69°.7	66°.8	69°.6	72°.0	72°.6	70°.1
Relative humidity, by sling psychrometer, per cent..................								25	43	36	40	52	52	51	58	48	48	57	53	43	45	49	53	58	57	51	55
Order of merit.	Balance: o=ordinary. v=invar. Hairspring: s=steel.			Trial number.	Point of compensation.			Jan. 9 to Jan. 16.	Jan. 18 to Jan. 25.	Jan. 27 to Feb. 3.	Feb. 5 to Feb. 12.	Feb. 14 to Feb. 21.	Feb. 21 to Feb. 28.	Mar. 1 to Mar. 8.	Mar. 11 to Mar. 18.	Mar. 20 to Mar. 27.	Mar. 29 to Apr. 5.	Apr. 8 to Apr. 15.	Apr. 15 to Apr. 22.	Apr. 22 t Apr. 29.	Apr. 29 to May 6.	May 6 to May 13.	May 13 to May 20.	May 20 to May 27.	May 27 to June 3.	June 3 to June 10.	June 10 to June 17.
					Temperature.	Rate.	Temperature constant.																				
					°	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s
1	Longines.	1,927,927	v. s.	6.53	82.9	−1.81	+.00087	−1.94	−1.79	−1.77	−1.07	−1.16	−1.17	−1.21	−1.57	−1.83	−2.04	−1.99	−1.73	−1.87	−1.89	−1.99	−2.06	−1.90	−2.20	−1.97	−2.07
2	Longines.	2,059,730	v. s.	9.44	104.9	+1.33	+.00064	+0.76	+1.49	+2.13	+2.89	+3.11	+3.27	+2.99	+2.10	+1.69	+1.47	+2.34	+2.34	+2.24	+2.26	+2.31	+2.23	+2.27	+2.26	+2.21	+2.17
3	Ditisheim.	36.170	v. s.	10.35	81.3	−2.62	+.00096	−1.99	−2.46	−2.33	−2.01	−1.80	−1.91	−1.91	−2.66	−2.76	−3.03	−2.84	−2.86	−2.76	−2.77	−2.86	−2.57	−2.70	−2.50	−2.53	−2.57
4	Ditisheim.	34,122	v. s.	13.77	22.5	+0.42	−.00027	−1.04	−0.94	−0.56	−0.03	+0.19	+0.30	+0.31	+0.21	−0.30	−0.59	−0.09	+0.16	−0.16	−0.13	0.00	−0.24	+0.16	−0.10	(1)	......
5	Ditisheim.	34,120	v. s.	15.56	93.4	+0.32	+.00036	−0.26	−0.01	+0.26	+0.77	+1.26	+1.29	+0.90	+0.76	+0.69	+0.21	+0.70	+0.83	+0.90	+1.00	+1.33	+1.26	+0.94	+1.44	+1.17	+1.21
6	Ditisheim.	34,124	v. s.	15.97	40.0	−0.40	+.00009	−0.99	−0.69	−0.74	−0.54	−0.54	−0.49	−0.21	+0.09	+0.26	−0.06	−0.19	0.00	−0.01	+0.03	−0.14	−0.10	−0.11	−0.09	+0.04	−0.06
7	Ditisheim.	36,167	v. s	16.90	77.5	−2.57	+.00156	−1.41	−2.59	−2.33	−1.89	−1.61	−1.61	−1.66	−2.63	−2.37	−2.89	−2.19	−2.41	−2.14	−2.27	−2.30	−1.97	−2.31	−2.11	−1.83	−1.80
8	Longines.	2,059,727	v. s.	24.11	43.8	−2.21	+.00053	−1.64	−1.60	−2.07	−2.03	−1.90	−2.20	−2.26	−1.60	−0.99	−0.57	−0.83	−0.69	−0.70	−0.10	−0.11	−0.14	+0.47	−0.21	+0.03	−0.44

[1] Returned to maker.

TABLE III.—*Tabular statement of data of trial of old naval chronometers and torpedo-boat*

[NOTE.—The signs are astronomical, + losing, — gaining. Data of chronometers with trial number greater than 25 omitted.]

								Temperature-room trial, mean daily rates. (Orientation of chronometers not changed.)			
Temperature, by thermometer...............................degrees F..								89°.9	85°.0	70°.0	55°.0
Relative humidity, by sling psychrometer..................per cent..								25	43	36	40
Order of merit.	Balance: o=ordinary. a=auxiliary. c=corrector. v=invar. Hairspring: s=steel. p=palladium.			Trial number.	Point of compensation.			Jan. 9 to Jan. 16.	Jan. 18 to Jan. 25.	Jan. 27 to Feb. 3.	Feb. 5 to Feb. 12.
					Temperature.	Rate.	Temperature constant.				
					°	s	s	s	s	s	s
1	Johannsen........	4676	o. s.	3.06+	79.6	+0.25	+.00047	+0.47	+0.26	+0.29	+0.53
2	Bliss..............	2995	o. p.	3.59+	124.4	+0.86	+.00017	+1.01	+1.11	+1.36	+1.69
3	Bliss..............	2975	o. p.	5.83+	78.4	+0.34	+.00147	+0.37	+0.37	+0.50	+1.10
4	Leroy..............	909	o. p.	8.94+	95.4	−0.36	+.00091	−0.21	−0.26	+0.23	+1.13
5	Bond...............	612	o. s.	9.13+	74.2	−0.56	+.00140	+0.34	−0.39	−0.83	−0.23
6	Bliss..............	2937	o. s.	10.27	79.6	−0.08	+.00156	−0.10	−0.17	−0.04	+0.66
7	Negus (M. T. B. C.).	1596	o. s.	11.14+	58.8	+0.68	+.00173	....	....	....	....
8	Gowland..........	2770	o. s.	13.71+	65.0	+1.00	+.00224	....	....	....	....
9	Dent..............	49460	a. s.	14.06	−49.2	+2.64	−.00020	−0.63	−1.07	−0.46	+0.50
10	Bond..............	307	o. s.	14.18+	68.6	−2.22	+.00339	−0.66	−1.30	−2.21	−1.59
11	Bliss..............	3035	o. s.	14.29+	70.3	−0.87	+.00342	+0.10	−0.13	−0.87	−0.07
12	Bliss..............	3021	o. s.	14.36	69.0	−0.80	+.00190	+0.10	−0.49	−1.20	−0.59
13	Ditisheim (T. B. W.).	23086	v. s.	14.59+	202.0	+4.29	−.00031	+0.51	+0.01	−1.16	−2.47
14	Johannsen........	4745	a. p.	14.88+	68.3	+0.90	+.00109	....	....	....	....
15	Negus..............	1976	o. p.	15.43+	63.8	+0.05	−.00151	−0.49	−0.63	−0.01	−0.07
16	Negus..............	2115	o. s.	16.63+	70.9	+2.70	+.00302	+3.76	+3.30	+2.70	+3.46
17	Bond..............	509	o. s.	16.95	60.6	−0.50	+.00262	+1.90	+1.13	−0.34	−0.39
18	Heinrich..........	1047	o. s.	17.00+	57.7	−1.24	+.00131	....	....	....	....
19	Negus..............	1273	o. s.	17.14+	68.1	−0.65	+.00345	+1.46	+0.33	−0.64	−0.06
20	Negus..............	1189	a. s.	18.16+	68.9	+1.73	+.00302	....	....	....	....
21	Negus..............	1745	sc. s.	18.17+	70.8	−0.53	+.00297	+1.03	+0.07	−0.53	+0.21
22	Bond..............	569	o. s.	19.46	50.5	−0.82	+.00200	+2.44	+1.53	−0.27	−1.04
23	Negus (S. B. C.)..	1902	o. s.	19.80	57.6	−0.89	+.00191	+1.20	+0.34	−0.63	−0.94
24	Negus..............	1059	o. s.	20.30	55.7	+1.68	+.00157	+3.77	+3.39	+2.17	+1.69
25	Bond..............	562	......	20.98	74.3	−0.77	+.00376	−0.17	−0.50	−0.80	+0.63
26	Negus (S. B. C.)..	1520	o. s.	21.02+	66.6	+2.19	+.00404	....	....	....	....
27	Negus..............	2053	o. s.	21.89	104.8	+4.99	−.00049	+5.04	+5.20	+4.81	+3.67
28	Bliss..............	2912	o. s.	22.13	53.6	−1.89	+.00153	−0.27	−0.63	−1.83	−1.97
29	Negus..............	1279	o. s.	22.87+	77.9	−0.82	+.00251	+0.21	−0.69	−0.66	+0.50
30	Negus..............	1810	o. s.	23.68	76.9	−0.17	+.00294	+0.19	+0.01	−0.46	+1.06
31	Negus..............	1873	o. s.	24.38+	54.1	+0.84	+.00142	+2.70	+2.20	+1.20	+0.84

[1] Issued to Olympia.

[2] Issued to Kentucky.

[3] Issued to Georgia.

[4] Issued to Connecticut.

watches, United States Naval Observatory, Washington, D. C., Jan. 9 to June 17, 1912.

[NOTE.—The signs are astronomical, +losing, − gaining. Data of chronometers with trial number greater than 25 omitted.]

Temperature-room trial, mean daily rates. (Orientation of chronometers not changed)—Continued.						Chronometer room. (Orientation changed for polarity test, one week on N., S., E., and W.)									
50°.2	50°.0	55°.0	70°.0	85°.0	90°.0	67°.2	68°.6	68°.6	68°.4	69°.7	66°.8	69°.6	72°.0	72°.6	70°.1
52	52	51	58	48	48	57	53	43	45	49	53	58	57	51	55
Feb. 14 to Feb. 21.	Feb. 21 to Feb. 28.	Mar. 1 to Mar. 8.	Mar. 11 to Mar. 18.	Mar. 20 to Mar. 27.	Mar. 29 to Apr. 5.	Apr. 8 to Apr. 15.	Apr. 15 to Apr. 22.	Apr. 22 to Apr. 29.	Apr. 29 to May 6.	May 6 to May 13.	May 13 to May 20.	May 20 to May 27.	May 27 to June 3.	June 3 tc June 10.	June 10 to June 17.
s	s	s	s	s	s	s	s	s	s	s	s	s	s	s	s
+0.46	(1)	......	......	......	......	......	......	......	......	......	......	......	......	......	......
+1.96	+2.03	(2)	......	......	......	......	......	......	......	......	......	......	......	......	......
+1.61	+1.54	+1.17	+0.37	+0.43	+0.31	(3)	......	......	......	......	......	......	......	......	......
+1.24	(1)	......	......	......	......	......	......	......	......	......	......	......	......	......	......
+0.40	+0.51	+0.14	−0.23	−0.39	−0.16	−1.24	(4)	......	......	......	......	......	......	......	......
+0.94	+0.80	+1.06	+0.17	+0.09	−0.09	+0.20	+0.07	+0 13	+0.11	−0.10	+0.10	(6)	......	......	......
+0.96	+0.86	+0.71	+0.90	+1.87	+2.53	+0.67	+0.83	+0.40	+0.37	+0.57	+0.50	+0.67	+0.66	+0.46	+0.47
+1.47	+1.43	+1.23	+1.06	+1.90	+2.44	+0.70	+0.90	+0.60	+0.43	+0.89	+0.40	+1.03	+1.23	+1.16	+0.84
+0.79	+0.89	+0.44	+0.06	−0.86	−1.19	−0.23	−0.33	−0.14	−0.36	−0.60	−0.34	−0.66	−0.79	−0.79	−0.93
−0.87	−0.81	(6)	......	......	......	......	......	......	......	......	......	......	......	......	......
+0.60	+0.46	(2)	......	......	......	......	......	......	......	......	......	......	......	......	......
+0.16	+0.37	−0.27	−0.40	−0.14	+0.23	−0.69	−0.56	−0.80	−0.79	−0.59	−0.66	−0.27	−0.40	−0.44	−0.44
−2.83	−2.47	(6)	......	......	......	......	......	......	......	......	......	......	......	......	......
+0.61	+0.80	+1.09	+0.90	+1.20	+1.16	+1.24	+1.19	+1.33	+1.17	+1.31	+1.26	+1.44	+1.29	+1.59	+1.34
+0.24	+0.17	(7)	......	......	......	......	......	......	......	......	......	......	......	......	......
+3.61	+3.53	(2)	......	......	......	......	......	......	......	......	......	......	......	......	......
−0.09	−0.07	−0.46	−0.20	+1.00	+1.76	−0.13	−0.10	+0.13	+0.20	−0.30	−0.29	+0.03	+0.29	+0.46	+0.19
−0.69	−0.84	−1.23	−1.04	−0.26	−0.20	−1.43	−1.31	−1.43	−1.49	−1.17	−1.24	−0.89	−0.89	−1.34	−1.51
+0.53	+0.44	(7)	......	......	......	......	......	......	......	......	......	......	......	......	......
+3.00	+2.70	+2.31	+1.73	+2.51	+3.46	+2.07	+2.14	+2.41	+2.50	+2.03	+1.90	+1.86	+1.71	+1.99	+2.14
+0.39	(8)	......	......	......	......	......	......	......	......	......	......	......	......	......	......
−0.64	−0.50	−0.51	+0.14	+1.60	+2.53	−0.01	−0.03	−0.20	−0.33	−0.20	−0.33	+0.10	+0.24	+0.30	−0.01
−0.70	−0.74	−0.81	−0.57	+0.73	+1.46	−0.74	−1.07	−0.86	−1.07	−1.27	−1.41	−1.56	−1.36	−1.26	−1.40
+1.84	+1.93	+1.66	+1.84	+2.67	+3.30	+1.50	+1.40	+1.09	+0.74	+0.87	+1.04	+1.57	+1.53	+1.30	+1.01
+1.20	+1.30	+0.63	−0.59	−0.17	+0.36	−0.24	−0.47	−0.51	−0.50	−0.61	−0.41	−0.46	−0.46	−0.47	−0.40
+3.24	+3.43	+2.73	+2.24	+3.56	+4.23	+2.09	+2.23	+2.20	+2.11	+2.04	+2.00	+2.21	+2.19	+2.30	+2.13
+4.11	+3.93	+3.90	+4.00	+4.40	+4.04	+3.74	+3.66	+3.59	+3.24	+3.47	+3.46	+3.60	+3.49	+3.70	+3.34
−1.29	−1.17	−1.81	−1.13	−0.14	+0.43	−1.20	−1.20	−1.63	−1.70	−1.50	−1.67	−1.37	−1.27	−1.51	−1.40
+1.30	(9)	......	......	......	......	......	......	......	......	......	......	......	......	......	......
+2.40	+2.54	+1.41	+0.40	+0.03	+0.13	−0.39	−0.43	−0.53	−0.80	−0.74	−0.64	−0.59	−0.71	−0.66	−0.74
+1.50	+1.63	(7)	......	......	......	......	......	......	......	......	......	......	......	......	......

[5] Issued to Henley.
[6] Issued to Fanning.
[7] Issued to Illinois.
[8] Issued to Wisconsin.
[9] Issued to Tonapah.

APPENDIX No. 3.

REPORT OF THE HYDROGRAPHER.

HYDROGRAPHIC OFFICE,
Washington, D. C., September 11. 1912.

From: Hydrographer.
To: Bureau of Navigation.
Subject: Annual report.

1. I respectfully submit the following report of the Hydrographer for the fiscal year ending June 30, 1912. Toward the end of the report statistics showing a summary of the work of the divisions of the office are given.

2. The work of the Hydrographic Office has increased enormously during the past 10 years, and even during the past year. In fact, it is increasing all the time, and the present force of employees is working at a very high pressure all the time.

3. During the year the office has collected a great deal of valuable information from various sources. Much of this has been published in Notices to Mariners, Bulletins, Daily Memoranda, and Pilot Charts. These publications are furnished to volunteer observers throughout the world in return for the information which they furnish to the office. Much of the information received is, of course, not published; and the editing of this received information constitutes one of the most important duties in the office. It is essential that the voluntary collection of information should be continued and that the number of observers should be increased.

4. Much of the information contained in the Notices to Mariners, Bulletins, and Daily Memoranda has been so important to the Navy and the maritime interests of the country that it has been sent broadcast by radio, so that all vessels within reach by radio should get it at once. This is particularly true of ice reports, and in connection with this most important duty of the office it is appropriate to refer to the

TITANIC DISASTER.

5. On Sunday, the 14th of April, about 10 p. m., the White Star steamer *Titanic* struck an iceberg in latitude 41° 46′ north, longitude 50° 14′ west, and sank in about three hours. The loss of life resulting from this accident was frightful, 1,517 people having perished as a direct result. The accident startled the world and set people, particularly seamen, to thinking very deeply. It had been supposed by very many, perhaps the majority of people, that the *Titanic* and other great steamships were not sinkable. The fact that she did sink from collision with an iceberg, and in a comparatively short time, aroused the world to the realization of the fact that the unsink-

able ship has not yet arrived, and the best safeguard against accidents at sea is now, as it always has been and always will be, constant and unremitting vigilance and heeding warnings of dangers. It is a lamentable fact and a remarkable coincidence that the sinking of the *Titanic* was caused by an iceberg the report of which she had transmitted by radio.

6. Naturally, when news of the sinking was received at the Hydrographic Office, those in charge looked over the records to make doubly sure that all news that the office had received of ice had been given to the steamship lines. Such was found to be the fact. On the Pilot Chart of April, 1912, Hydrographic Bulletin of April 10, and in the Daily Memoranda of April 10, 11, 12, and 13, were given numerous warnings that ice had been seen in the vicinity of the steamship lanes and naturally might be expected to cross those lanes. The information in these Daily Memoranda is furnished by the branch hydrographic offices in the different cities to the maritime interests, and those in New York had the information.

7. On April 12 the Daily Memorandum contained information that numerous icebergs and extensive field ice was sighted in latitude 41° 58′ north and longitude 50° 20′ west, on April 11. Certainly some of those bergs might be expected to be in that vicinity three days later. But on April 14 the Hydrographic Office received a telegram transmitted by radio from the *Amerika*, of the Hamburg-American Line, through the *Titanic*, stating that two large bergs were in latitude 41° 27′ north and longitude 50° 08′ west. In spite of these warnings the *Titanic* sped on at 22 knots at night and met her doom in latitude 41° 46′ north and longitude 50° 14′ west. Had she but heeded the one warning that she transmitted she would probably have saved herself.

8. It is most difficult to see ice at night, but most people do not realize this, and the officers of the *Titanic* probably considered that they would be able to see a berg far enough away to avoid it. The Hydrographic Office has published a pamphlet giving some means of determining the proximity of ice. It has also published on the back of its Pilot Charts from time to time information concerning the ice and ice movements. This information is always available to mariners and others interested at the main office and at the branch offices.

9. It is earnestly hoped that the steamship companies can be persuaded to adopt a system of forwarding by radio to their vessels on the ocean important information concerning ice and other dangers to navigation. On January 16, 1912, the office sent a circular letter to shipmasters requesting them to make use of United States naval radio stations for the purpose of reporting to the Hydrographic Office ice or other dangers to navigation. Much of the information the office receives comes by reason of this circular, and it is hoped to extend greatly the service.

10. The office has had some correspondence concerning the advisability of cabling to Europe important information concerning dangers to navigation, making the Hydrographic Office a sort of clearing house for sending these cables. If such an agreement can be made, it would be of great benefit to steamers sailing from Europe. Some negotiations looking to this have been conducted by Lieut. John Grady, United States Navy, in charge of the branch office at

New York. The Deutshe Seewarte and the British hydrographer think it an excellent idea and believe that it should be established by proper international authority. That is not necessary at all if the owners of the steamship lines and the underwriters are willing to agree to the scheme.

STEAMSHIP LANES.

11. Trans-Atlantic steamships, by mutual consent given in a written agreement, follow a definite set of tracks in passing to and fro from northern Europe to the United States. The agreement came about through long experience and the occurrence of many disasters that might have been avoided. The suggestion of these lanes came originally from Lieut. M. F. Maury, United States Navy, the officer who has contributed so much to the world's knowledge and to the safety of navigation. Up to 1891 there was no formal agreement to follow the lanes. In that year five companies—the Cunard, Guion, Inman, National, and White Star companies—agreed to follow definite lanes such as had been advocated by Lieut. Maury and published subsequently on the monthly Pilot Chart.

12. With slight modifications those lanes were accepted formally by all the steamship companies concerned in November, 1898, the chief modification being that the change from a northerly to a more southerly set of tracks is made in January, and that the change from the southerly back to the northerly track is made in August. This shifting of the lanes is for the purpose of avoiding the region of greatest danger from ice and fog during the spring and early summer.

13. The chief incentive in devising the steamer lanes was not speed, but safety to life and property, and these lanes are by no means the shortest possible tracks. These latter would lie far to the north, in sight of the Newfoundland coast, but would pass through the entire region of icebergs and fog. In order to avoid collision with each other, the east and west bound steamers keep about 50 miles apart on that part of the lanes where danger from ice and fog is greatest. The adoption of steamer lanes has the advantage that fishermen, tramp steamers, and any other craft likely to frequent these regions know definitely along what tracks the regular liners are passing.

14. The lanes adopted by the steamship companies in November, 1898, are shown in the accompanying table.

15. Ordinarily the southern track from January 15 to August 23, both inclusive, is comparatively free from serious ice trouble; but once in every few years the ice comes down from the north in much greater quantities and is a serious danger to navigation. The year 1912 was one of the abnormal years, the ice coming south in great quantities and in very large bergs. The collision of the *Titanic* occurred at a point directly on the southerly westbound track.

16. As there was much ice near this point, it was imperative that steamers adopt as quickly as possible more southerly tracks. As soon as the accident occurred the Hydrographic Office took up with the bureau the question of recommending to the steamer lines a shift to the southward. Before the department reached a decision in the matter the lines acted and shifted the tracks to the southward as follows: Eastbound, to cross longitude 47° in latitude 40° 10′, beginning April 16; and westbound, to cross longitude 47° in latitude 41° N., beginning April 25.

17. On April 18 the Hydrographic Office recommended a further shift southward because of the practical certainty from past experience that the ice would come below 40°. On April 19 the lines adopted this recommendation, with some modification: Eastbound, Ambrose lightship to latitude 40° N., longitude 70° W.; then to latitude 38° 20′ N., longitude 50° W.; then to latitude 38° 20′ N., longitude 45° W.; then Great Circle to Bishops Rock or Fastnet. Westbound, Great Circle to latitude 39° N., longitude 45° W.; then to latitude 39° N., longitude 50° W.; then to Nantucket Shoals lightship; then to Ambrose lightship.

18. On May 9 the steamship *Amerika* passed a berg in latitude 39° N., longitude 47° W. This came to the Hydrographic Office by radio and was sent broadcast. In consequence, on May 11 the steamship lines shifted the tracks as follows: Eastbound, Ambrose lightship to latitude 37° 40′ N., longitude 50° W.; then to longitude 45° W. on parallel 37° 40′ N.; thence Great Circle to Bishops Rock. Westbound, Great Circle to latitude 38° N., longitude 45° W.; thence to longitude 50° W. on parallel 38° N., and thence to Nantucket and Ambrose lightships. These tracks were used throughout the months of May and June; but the companies were anxious to shift back to the normal tracks as quickly as possible, and some of them requested the opinion of the Hydrographic Office as to the advisability of doing so. This office did not consider it safe to return to the normal tracks because of ice reports just to the northward of the tracks and the great probability that some of it would reach the vicinity of those tracks. On June 24, however, the office notified the companies that it was safe to return to the tracks adopted on April 19, viz: Latitude 38° 20′ eastbound, and latitude 39° westbound between the meridians of 45° and 50°, provided all companies would require their captains to double the lookouts while near the ice region and slow down or stop during thick or foggy weather, and slow to half speed at night.

19. On June 28, after consideration of the latest reports and conditions, this office notified the companies that it was safe to return to the tracks adopted the 16th of April, viz: Cross longitude 47° W. in latitude 40° 10′ N. eastbound, and latitude 41° westbound; with the same provisos as those of June 24. This was as far as the office considered it safe to go.

20. The companies did not see fit to adopt these recommendations, because they were anxious to resume the normal tracks; and, on July 8, they did return to those tracks, viz: Cross longitude 47° W. in latitude 41° N., eastbound, and in latitude 42° N., westbound. The office felt at the time that this was dangerous, because, while no ice had been reported on these tracks for many days, a great deal had been reported from one to two hundred miles to the northward, and we felt sure some of it would come south before disintegrating.

21. This attitude of the office has been amply justified by recent developments previous to the date of this report, which required the lines to return to more southerly tracks, viz, eastbound, to cross longitude 47° W. in latitude 40° N.; and westbound, to cross longitude 47° W. in latitude 40° 30′ N. These tracks, adopted July 20, are being used at the date of this report, and there is apparently no present intention of returning to the normal tracks for this season of the year.

ICE PATROL.

22. On May 15 the Hydrographic Office recommended to the department that, in order to assist in safeguarding life and property, one or more suitable vessels be detailed to establish an ice patrol in the vicinity of the steamer lanes, and keep in touch with the ice as much as possible. Later the *Birmingham* and *Chester* were detailed to make the patrol, one vessel being on her station while the other was in port. The *Birmingham* sailed from Philadelphia on May 19, reaching her station five days later. She was relieved by the *Chester* on June 7, and she in turn by the *Birmingham* on June 19. The *Birmingham* finished the patrol and left her station on July 6 for Philadelphia, by orders of the department.

23. The ships on the ice patrol kept steamers constantly informed by radio of the ice conditions near the lanes, and thereby rendered most valuable services to shipping. The ships also obtained valuable information with regard to the visibility, drift, and behavior of ice. Temperatures of the air and water were taken when in the vicinity of ice, and other observations made, all of which are valuable. The results of these observations will be published as soon as possible.

24. During the cruises of the *Birmingham* and *Chester*, representatives of the Bureau of Standards were on board and cooperated with our officers in obtaining valuable data.

25. The observations taken by the ice-patrol ships were not as complete as we hoped to be able to get, because principally of fog. The ships were in fog the greater part of the time, and more than once after they had got in touch with ice, they lost it because of the fog, and were thus prevented from obtaining absolute data as to its drift and behavior. Nevertheless, the data obtained are very good and will form a valuable addition to the publications of the Hydrographic Office.

26. One of the interesting conclusions reached by the commanding officer of the *Birmingham* was that gunfire has but little effect on icebergs. In one case he fired a 5-inch shell at a berg, and saw the hole made in the berg; but the destructive effect of the shell was negligible. Another conclusion was that the temperature of the water and air was of little value in determining the proximity of ice.

27. The ice patrol of 1912 was a most valuable aid by the Navy Department to the safety of navigation, and the appreciation of the maritime world has been suitably expressed in a letter from the maritime exchange of New York. I recommend a continuance of the patrol each year during the ice season, and respectfully suggest that it will afford good opportunities for the employment of cruisers in reserve, one at a time.

FIELD WORK.

28. During the year the office has had five parties in the field doing survey and kindred work. The parties consisted of the U. S. S. *Eagle*, U. S. S. *Paducah*, U. S. S. *Hannibal*, a topographic party in the vicinity of the naval station at Guantanamo, and a Cuban longitude party. The work done by each of these parties is shown in the summary of the work of the office given toward the end of this report. It is intended, during the present fiscal year, to continue all these parties, except the Cuban longitude party, whose work is finished,

except computation of data. The work of the other parties will be pushed and the completion of the surveys advanced as much as possible. The survey of the east coast of Central America, being carried on by the *Hannibal*, is work that has been urgently needed for many years; and it is greatly to be regretted that the unfavorable weather prevents work on the coast except from January to June, inclusive. I strongly recommend that the collier *Leonidas* be fitted and commissioned as a surveying ship to join the *Hannibal* in her work. This would greatly reduce the time necessary for the survey of the coast of Central America. The north coast of Cuba needs to be surveyed, as the surveys on which the charts of that coast are based are from 10 to 50 years old, some of them being more than 90.

29. It is probable that the work the *Hannibal* is now engaged upon will occupy her for 8 or 10 years at least; the Cape Cruz-Casilda work, with the *Paducah*, will occupy at least 3 or 4 years more, and the *Eagle's* work on the coast of Haiti will occupy this year and possibly next.

NAVAL OFFICERS FOR DUTY AT THE HYDROGRAPHIC OFFICE.

30. For the past three years the Hydrographic Office has been seriously embarrassed by the operation of the law requiring that there be not more than two naval officers on duty at the Hydrographic Office. One of these is the Hydrographer, and the other is in charge of the divisions of Issue and of Sailing Directions. Until very recently he was also in charge of the Division of Chart Construction. The Hydrographic Engineer now has charge of that division, by order of the department. Naval officers are needed badly to supervise all the technical work that the office performs and to assist in writing and editing sailing directions and revising technical books. They are, I believe, also needed for administrative duties. Certainly in an office where all the work is technical and primarily for the efficiency of the fleet, naval officers should supervise it.

EMPLOYEES.

31. The number of the employees of the Hydrographic Office has not materially increased since 1898, and the work of the office has more than doubled. The following table will give some idea of the increase:

	1898	1912
Number of employees	85	88
Hydrographic Office charts on issue	1,110	1,824
Copies of Hydrographic Office charts on hand	81,313	153,943
Total corrections made	61,902	219,470

A like increase has occurred in other branches of the office. The consequence is that the employees are all working under a severe strain, and it is almost impossible to keep the work up to the high standard desired. Nevertheless, the employees are energetic and by dint of very great efforts prevent the work from retrograding.

In a very little while, however, an increase of force, besides the one in connection with the British Admiralty charts, will be absolutely necessary.

32. The employees of the Hydrographic Office are paid less for their work than the employees of any other branch of the Government doing the same class of work, and this injustice should be corrected. I made recommendations in the estimates for 1914 for some small increases in the number of employees and in pay, and it is hoped gradually to get the number of employees and the rates of pay necessary for the office.

BRANCH OFFICES.

33. The 16 branch offices have continued during the year their efficient work. At nearly all of these offices a time ball is dropped at noon every day, except Sundays and holidays. These time balls will probably be rendered unnecessary because of radio time signals being sent out; but, of course, there are many vessels not yet equipped with radio; and even some that are so equipped will not wish to give up a time ball service to which they are accustomed.

34. The branch offices are distributing points for nautical information and places where shipmasters and all others interested can consult the charts and other publications of the office. These are all corrected up to date, and the latest nautical information is on file. It is therefore never necessary for any ship to leave port with incorrect charts and sailing directions. All they have to do is to consult our branch office.

35. The branch office at New York was of the very greatest service to the maritime world at the time of and subsequent to the *Titanic* disaster. The officer in charge of that office kept in touch with the main office and with the steamship lines and rendered great service in advising and in disseminating information.

36. Recently this branch office has established on the floor of the maritime exchange a chart, on glass, of the North Atlantic Ocean, on which are shown daily the positions of obstructions to navigation. This chart is highly appreciated and has attracted great attention. The Maritime Exchange of Philadelphia has requested a similar chart, which we shall endeavor to supply.

The year was one of great success and many achievements. Under the skillful and wise direction of Lieut. John Grady this branch has rendered excellent service to the merchant marine and won increased appreciation for itself and the main office, particularly in the matter of gathering daily and nightly the latest authentic news of ice and other dangers at sea and issuing same by telephone, by written bulletins, and by means of a large chart on the floor of the maritime exchange. The temporary detail of an additional naval officer and a yeoman made this possible.

Lieut. Grady intimates that the limit of usefulness of his office is merely a question of men and means. Certainly the Navy Department has here an opportunity to do excellent work for American sea-borne commerce, a growing field that deserves the support of additional space and help, technical and clerical, adequately paid.

37. The offices on the Great Lakes are naturally not in as close touch with seamen as are those offices on the seaboard, but they are

most useful in disseminating information and distributing publications. And their field of usefulness can be extended in the direction of bringing about better navigational methods on the Great Lakes.

38. All of the branch offices supply to inquirers a great deal of information on nautical subjects that the people making the inquiries can not obtain elsewhere in their vicinity.

Several of them have reported unfavorably on the present system of distributing light lists and buoy books. These were, until a few months ago, issued freely, but at the request of the Commissioner, Bureau of Lighthouses, only enough are on hand at the branch hydrographic offices to meet emergency demands, and all regular distribution is to be through the offices of the lighthouse inspectors.

San Francisco.—In addition to the regular office outfit of charts and books, this office keeps corrected a Pacific and an Asiatic outfit for Navy demand. The Reprints and Bowditch meet with favor, also the large compass roses on our charts. Correct time was cabled to vessels of the Navy, Revenue-Cutter Service, and cable company at Honolulu and Midway. A nighttime service by our radio stations is advised.

While wages in every walk of life have been increased the salaries of employees here have remained stationary, and if we were to lose the services of those now employed here it would be utterly impossible to replace them. The employees are most competent, prompt, and faithful. They are very obliging and strive in every manner to increase the efficiency and usefulness of this branch of the Navy.

Duluth.—In addition to distributing the Notice to Mariners and acting as a bureau of information on all subjects relating to navigation of the Great Lakes, one of the most important duties has been to give instruction to mariners in use of navigational instruments and methods, azimuth and compass correction in particular. Large and regular classes attend in the office every winter; likewise the naval militia officers.

REPRODUCTION OF BRITISH ADMIRALTY CHARTS BY PHOTOLITHOGRAPHY.

39. For many years it has been felt that this office was under a great disadvantage in having to purchase a great many charts of foreign waters from the agents of the British Admiralty. Our purchases for most years average nearly 20,000 copies, and there are at present about 2,000 individual charts, copies of which we must purchase from the British Admiralty agents for issue to our vessels.

40. For several years the office has contracted to have some of the charts engraved on copper and thus made available for issue as Hydrographic Office charts, but the number has been insignificant compared to the whole number to be bought, and the process of engraving is very slow.

41. The method of photolithographing on stone for charts is bad because we can not preserve the stone. In recent years a method of lithography or photolithography on zinc has been developed, and this is the best method of producing charts by photolithography, because the plates may be preserved just as the copper engraved plates are. This office in 1911 made some experiments with zinc, and the hydrographer, Capt. John J. Knapp, United States Navy,

became convinced that the method on zinc was the best for the use of the office, and so reported to the department and Congress; in consequence of which there was incorporated in the legislative, executive, and judicial appropriation bill an appropriation of about $50,000 for the commencement of the work of reproducing the British Admiralty charts by photolithography. It is estimated that the total number of British Admiralty charts can be reproduced for a total cost of about $200,000, and in about four years. This will be much less expensive and much quicker than engraving the charts would be. The appropriations provide for 18 new employees, and steps are being taken to obtain them. Steps are being taken also to purchase the new material that will be necessary in the work.

42. During the past year 44 charts have been reproduced by the zinc method under contract by the Eckert Lithographing Co., and while these charts in some instances have not been all that was desired, they are good, and the process is in rapid development.

43. The work of reproducing the British Admiralty charts will be prosecuted with vigor, and it is hoped that it may be completed in less than the estimated time.

ORGANIZATION OF THE HYDROGRAPHIC OFFICE.

44. The work of the office is carried on by means of the following organization:

Main office.—Files, accounts, requisitions, etc., in charge of a nautical expert acting as chief clerk. In the estimates for 1914 it is recommended that the title of chief clerk be given.

Division of Sailing Directions.—Preparation of sailing directions, Notice to Mariners, nautical and navigational books. Lieut. Commander W. L. Littlefield is in charge of this division.

Division of Chart and Book Supply.—Supplying charts and books to vessels of the Navy. The work of this division involves the keeping corrected to date the stock of charts and books. The division is in charge of Lieut. Commander Littlefield.

Division of Chart Construction.—Making and correcting charts. The work of this division involves the careful preparation of survey and other data for incorporation into our charts. It has been for the fiscal year in charge of Lieut. Commander Littlefield. Previous to the date of this report the Hydrographic Engineer, Mr. G. W. Littlehales, was placed in charge by order of the department.

Division of Pilot Charts and Branch Offices.—Publication of the pilot charts, and all other printing of the office except charts, branch offices, and marine data. It has charge also of all sales. Assistant R. L. Lerch is in charge of the division.

45. The above organization is not entirely satisfactory, and some changes must be made, if not in the actual work of the divisions, at least in the distribution of that work.

46. The attention of the bureau is invited to the fact that this office has to prepare during the course of the year many letters to Senators and Representatives, informing them that the law forbids our supplying to them, except for official use, any Hydrographic Office charts or books. This should not be so; we should be able to supply to Senators and Representatives charts and books as requested by them.

47. TABLES SHOWING DETAILS OF WORK OF HYDROGRAPHIC OFFICE FOR THE FISCAL YEAR 1912.

Purpose.		Appropriated.	Expended.
Main office.			
Salaries		$102,500.00	$100,099.17
Contingent and miscellaneous expenses	$11,700.00		
Received from sales	7,287.12		
		18,987.12	[1] 18,182.01
Pilot Chart, North Pacific Ocean		2,000.00	1,941.90
Contingent expenses, Navy Department (allotted)		150.00	[1] 140.81
Public printing and binding		25,000.00	24,341.60
Branch hydrographic offices.			
Contingent expenses		11,000.00	[1] 8,858.08
Services, necessary employees		17,960.00	17,795.00
Total		177,597.12	171,358.57

[1] Estimated.

Vouchers and requisitions handled:
- 1,000 sets of vouchers (estimated).
- 350 sets of requisitions (estimated).

Correspondence:
- Received 16,000 letters (estimated).
- Received 816 books and pamphlets.
- Sent 6,000 letters (estimated).

48. *Division of Sailing Directions.*—The personnel of the division has frequently changed during the year, which has resulted in a retardation of its output.

Total publications prepared during the year, other than Notice to Mariners.	13
Notice to Mariners:	
Index to Notice to Mariners (copies)	2,030
Notice to Mariners (1911–12)	
Number of weekly notices	52
Number of copies each week	3,490
Number of copies during year	181,500
Number of paragraphs during year	4,002

There have been received, complimentary or by requisition, 2,518 charts. There have been transferred from old to new copies of charts about 12,500 correction marks. There have been handled by requisition or for plotting and reference about 6,000 charts. Twenty sets of index charts and catalogues have been kept corrected to date, as well as 1 accession, 1 requisition, and 3 date books.

Over 1,250 foreign documents, charts, letters, pamphlets, journals, scientific treaties, sailing directions, light lists, etc., have been examined, extracts made therefrom, and their titles, contents, etc., translated from 12 modern languages.

All foreign Notices to Mariners received have been examined as to their value for publication in Hydrographic Office Notice to Mariners, and about 5,650 translations have been made therefrom.

The need of officers for this division is especially urgent.

New and corrected archive charts received	2,518

49. *Division of Chart and Book Supply.*—There are on issue at this date in the Hydrographic Office the following charts:

Hydrographic Office charts	1,824
Coast and Geodetic Survey charts	634
British Admiralty charts	2,002

There are at present 32 of these that are confidential, 11 of them are Hydrographic Office publications and 21 are publications of the United States Coast and Geodetic Survey. This is an increase of 3 over the total number of 29 confidential charts reported on issue in the last annual report.

In the book section 13 new and revised publications were issued by the Hydrographic Office during the year.

Hydrographic Office chart section—Receipts and expenditures of Hydrographic Office charts.

Charts on hand June 30, 1911	160,576
Received	61,682
Total	222,258
Total number expended	68,315
On hand June 30, 1912	153,943
Number of different charts published	76
Number of different charts canceled	15
Hydrographic Office charts on issue (engraved)	1,236
Hydrographic Office charts on issue (lithographed)	588
Total	1,824
Total corrections made	114,580

Coast Survey section.

Charts on hand June 30, 1911	8,208
Charts received from Coast Survey on requisition	39,235
Charts received from Coast Survey for standards	799
Total number of charts on hand and received	48,242
Total number of charts expended	38,535
Total number of charts on hand June 30, 1912	9,707
Individual charts for issue to United States vessels June 30, 1911	635
Charts placed on issue during the year	33
Total	668
Charts canceled during the year	34
Individual charts on issue June 30, 1912	634
Total corrections made	77,126

British Admiralty section.

Number of charts on hand June 30, 1911		40,994
Received		13,626
Total		54,620
Expended		9,830
Number of charts on hand June 30, 1912		44,790
Individual charts on issue June 30, 1911	2,032	
Number placed on issue during the year	16	
		2,048
Number canceled during the year		46
Individual charts on issue June 30, 1912		2,002
Total corrections made		27,764

Book section.—The office handles a great many publications besides its own. They come principally from the British Admiralty, the Coast

Survey, Bureau of Lighthouses, Bureau of Navigation (Commerce and Labor), and the Steamboat-Inspection Service. The office issues to the naval service its own and the other publications, and also sells its own.

The following table shows the number of books handled during the year, including those from all sources:

Received.	Issued to the service.	Sold (Hydrographic Office only).
13,680	7,082	3,206

Outfits.—Outfits consist of a selection of charts and books for the particular use of an individual vessel. The number of books range from 52 to 74, and 65 per cent of these must be corrected by hand for information received after they were printed. The number of charts range from 950 to 1,700, all of which must be corrected in like manner.

The following table shows the number of outfits issued during the last four years:

Year.	Complete.	Special.	Total.
1909	16	57	73
1910	17	38	55
1911	9	42	51
1912	15	89	104

Comparison between 1911 and 1912.

	1911	1912	Approximater per cent of change; increase (+) or decrease (−).
HYDROGRAPHIC OFFICE CHARTS.			
On hand	160,076	153,943	− 4
Received	64,949	61,682	− 5
Expended	58,976	68,315	+ 15
Corrections made	117,070	114,580	− 2
Individual charts on issue	1,763	1,824	+ 3½
COAST SURVEY CHARTS.			
On hand	8,208	9,207	+ 6
Received	32,095	40,034	+ 25
Expended	29,519	38,535	+ 31
Corrections made	42,625	77,126	+ 81
Individual charts on issue	635	634	0
BRITISH ADMIRALTY CHARTS.			
On hand	30,768	44,790	+ 45
Received	8,894	13,626	+ 53
Expended	10,226	9,830	− 4
Corrections made	37,553	27,764	− 26
Individual charts on issue	2,032	2,002	− 1
Complete outfits furnished	9	15	+ 67
Special outfits furnished	42	89	+112

50. *Division of Chart Construction.*

NEW CHARTS PUBLISHED.

Kind.	By Hydrographic Office.	By contract.	Total.
Engraved	20	3	23
Lithographed	10	44	54
Total	30	47	77

CHARTS REPRINTED.

Kind.	Extensive corrections.	Minor corrections.	Total.
Engraved	17	344	361
Lithographed	3	23	26
Total	20	367	387

As the charts come up for new editions the old compass diagrams are being replaced by the new standard and, in the case of plan charts, marginal projection scales are being added.

The upkeep of the accumulated stock of chart plates and the monthly publication of the Pilot Charts of the several oceans, together with an unusual amount of work of a miscellaneous nature, not chargeable to navigational charts, absorbed a large part of the energies of the employees. The preparation of the charts to be reproduced by the Eckert Lithographing Co. and the revision of the proofs of these charts also heavily taxed the energies of some of the leading draftsmen. This division was also called upon to furnish several small maps and three wall maps for the use of the Senate committee investigating the loss of the steamship *Titantic* of the White Star Line.

Number of charts printed during the year.

Total of all kinds	220,858

51. *Surveys.*—The U. S. S. *Eagle* completed the survey of the southeast coast of Cuba from Cape Maysi to Cape Cruz, including special surveys of Yateras River entrance and the ports of Baitiqueri and Escondido. She was then ordered to continue the work of surveying Aux Cayes Bay, Haiti, started in a previous season.

The U. S. S. *Paducah* has been engaged in the Cape Cruz-Casilda Survey, and has advanced this survey from East Channel to Caballones Channel, including the inland waters and outlying cays.

The U. S. S. *Hannibal* has continued the survey of the east coast of Nicaragua from Waco Lagoon to Gordo Point.

The topographic survey of Guantanamo was devoted chiefly to triangulation and covered about 140 square miles, extending west to the Siguas River.

Ships not detailed for surveying duty have made the following surveys:

U. S. S. *Des Moines:* Port Hatibonico, southeast coast of Cuba.

U. S. S. *Nashville:* Santo Domingo Harbor, south coast of Santo Domingo.

The Cuban longitude party has been engaged around the entire coast of Cuba in the measurement of meridian distances by the exchange of telegraphic time signals for the purpose of establishing the geographical positions of Baracoa, Antilla, Gibara, Nuevitas, San Fernando, Caibarien, Isabella, Cardenas, Bahia Honda, Dimas, Cienfuegos, Jucaro, Santa Cruz del Sur, Manzanillo, Santiago, Guantanamo, Chirivico, and Cape Maysi.

52. Division of Pilot Charts and Branch Offices.

PUBLICATIONS.

Daily memorandum.—This publication has appeared throughout the year in daily editions of 260 copies, of which one has been sent to each vessel of the battleship fleet and the remainder to the several branch hydrographic offices. By its means information is sent out daily regarding all items of dangerous wreckage, icebergs, and other news of immediate interest to navigators. In addition to this items of dangerous wreckage off our coasts are also telegraphed to the appropriate naval radio station and disseminated seaward four times at stated periods. Similar treatment is given to reports of obstructions received at New Orleans by the officer in charge of the branch hydrographic office there, and likewise at San Francisco in the case of any reports to branch offices on the west coast. Original reports that fall within the area patrolled by the derelict destroyer *Seneca,* of the Revenue-Cutter Service, are at once telephoned to that service and such messages are followed up by written confirmation. The edition of the Daily Memorandum increased from 150 copies in 1911 to 260 copies daily, due, no doubt, to the extraordinary ice season this year.

Hydrographic Bulletin.—The average edition has been 4,500 copies a week during the past year, practically all of which were issued.

In 1911 (fiscal year) the number of ice reports was 462. On account of the increasing use of radio telegraphy, both the Bulletin and Daily Memorandum are now more up to date than formerly. A convincing evidence of this is the republication by the New York Herald from day to day of items already published in the Daily Memorandum.

Pilot Charts.—This publication has been conducted monthly for the North Atlantic, North Pacific, and Indian Oceans and quarterly for the South Atlantic and South Pacific Oceans, and the endeavor has been made to provide these publications with timely and varied articles of interest to mariners.

Reprints of hydrographic information.—The series of handy pamphlets of varied information appearing under this heading was begun in 1909, when Nos. 1 to 13 were issued; 1911 (fiscal year), Nos. 14 to 21 were brought out, and during the past year the following:

Reprint No. 22.—Port Facilities No. 10, 20 pages; treats of a number of harbors in the North and South Atlantic Oceans.

Reprint No. 23.—Port Facilities No. 11, 48 pages; treats of a number of harbors in the North and South Pacific Oceans and in the Indian Ocean; also giving sailing directions for certain ports in Panama, ports between Panama and Guayaquil, and certain ports in Ecuador and Colombia.

PRINTING, MAILING, AND SUPPLIES.

The following table is a guide to the sizes of editions (remembering that we retain only about 100 copies to answer subsequent demands):

Name of publication.	Number of copies.
Notice to Mariners (weekly)	3,795
Extracts, Notice to Mariners (weekly)	18,890
Hydrographic Bulletin (weekly)	4,462
Corrections to List of Lights (weekly)	312
North Atlantic Pilot Chart (monthly)	5,310
North Pacific Pilot Chart (monthly)	2,455
Indian Ocean Pilot Chart (monthly)	1,387
South Atlantic Pilot Chart (quarterly)	2,203
South Pacific Pilot Chart (quarterly)	2,391

SALES.

The charts and books sold were as follows:

	Copies.	Amount.
Charts:		
Sales	23,018	$5,214.18
Credits	1,682	138.50
Net	21,336	5,075.68
Books:		
Sales	3,198	2,833.50
Credits	75	42.83
Net	3,123	2,790.67
Net total charts and books sold	....	7,866.35

This exceeds the sales of the fiscal year 1911 by $1,447.74, when there were 16,289 charts and 3,279 books sold. The credits refer to charts or books returned in good condition or to those returned because a revised edition had succeeded them.

Tabular statement of work done by the branch hydrographic offices during the fiscal year ended June 30, 1912.

Character of work.	Atlantic and Gulf coasts.							
	Boston.	New York.	Philadelphia.	Baltimore.	Norfolk.	Savannah (6 mo.).	New Orleans.	Galveston.
Distributed:								
Bulletins, hydrographic	21,002	23,988	13,538	5,309	9,022	3,516	12,600	7,547
Daily memorandums	624	7,424	1,201	2,533	10,813	4	1,686	942
Notices to Mariners	61,482	70,237	90,362	8,878	19,815	6,586	13,804	17,219
Pamphlets (not H. O.)	667	401	290	1,035	6,176	12	1,930	309
Pilot charts	4,826	18,105	5,245	2,174	2,323	917	8,620	3,069
Reprints	1,359	1,601	1,093	1,383	827	690	1,842	592
Forwarded:								
Chart reports	....	30	5	1	1	....	4	....
Current reports	31	2,377	44	67	60	4	440	141
Deep-sea soundings	....	75	5	1	1	....	10	....
Icebergs or field ice	394	472	104	32	16	1	6	2
Oil, use of	....	18	8	2	2	....	4	....
Port facilities	....	74	13	1	6	1	9	2
Route reports	....	53	5	4	5	....	15	2
Wrecks or derelicts	69	664	99	82	35	12	52	36
Unclassified reports	107	734	82	53	359	24	61	23
Other work:								
Acknowledgments (Form 24)	207	517	48	258	92	10	725	267
Letters written	95	1,529	276	197	158	61	412	160
Letters, circular or stock	187	714	509	1,304	147	78	1,752	524
Time ball dropped	279	(1)	304	274	297	136	(1)	305
Vessels visited	326	2,747	117	618	169	1	....	300
Visitors received	856	2,781	937	2,585	2,648	195	2,263	264

[1] No ball.

Tabular statement of work done by the branch hydrographic offices during the fiscal year ended June 30, 1912—Continued.

Character of work.	Pacific coast.			Great Lakes.					Total.
	San Francisco.	Portland.	Port Townsend.	Duluth.	Sault Ste. Marie (8 mo.).	Chicago.	Cleveland.	Buffalo.	
Distributed:									
Bulletins, hydrographic	3,375	1,107	2,020	2,221	680	1,568	2,128	821	110,442
Daily memorandums	170	489	2,749	333	248	280	....	....	29,496
Notices to Mariners	64,513	51,863	46,636	47,774	9,600	1,028	66,455	31,133	607,385
Pamphlets (not H. O.)	303	97	238	200	12	97	138	30	11,935
Pilot charts	8,491	1,483	4,093	744	281	1,105	910	60	62,446
Reprints	1,998	1,432	1,059	182	57	309	505	18	14,947
Forwarded:									
Chart reports	5	8	....	....	....	....	....	....	54
Current reports	269	22	55	(1)	(1)	(1)	(1)	(1)	3,510
Deep-sea soundings	3	15	4	(1)	(1)	(1)	(1)	(1)	114
Icebergs or field ice.	15	1	6	1	....	....	6	....	1,056
Oil, use of	6	1	....	5	....	....	2	....	48
Port facilities	16	18	4	36	....	....	....	....	180
Route reports	10	20	12	(1)	(1)	(1)	(1)	(1)	126
Wrecks or derelicts	74	5	24	16	....	3	21	....	1,192
Unclassified reports	379	301	92	31	4	7	70	....	2,327
Other work:									
Acknowledgments (Form 24)	412	63	91	102	....	....	....	....	2,792
Letters written	610	147	494	631	58	141	631	395	5,995
Letters, circular or stock	3,301	37	1,547	422	59	56	....	....	10,637
Time ball dropped.	300	306	(2)	302	207	298	(2)	278	3,286
Vessels visited	511	77	39	16	....	16	31	39	5,007
Visitors received	2,380	970	163	3,259	164	6,237	3,912	1,044	30,658
Telephone calls	....	934	....	....	....	3,565	4,780	....	....

[1] Signifies that no report was made.

[2] No ball.

GEORGE F. COOPER.

REPORT OF THE CHIEF OF THE BUREAU OF ORDNANCE.

DEPARTMENT OF THE NAVY,
BUREAU OF ORDNANCE,
Washington, D. C., October 5, 1912.

From: Chief of Bureau.
To: Secretary of the Navy.

Subject: Annual report for the fiscal year 1912.

The following report of the operations of the bureau for the fiscal year 1912 is submitted:

During the year many improvements in ordnance material have been made, but as information regarding these is considered confidential, it is not given in detail in this report.

The organization of the reserve fleets in the Atlantic and Pacific Oceans has thrown a large amount of additional work and expense on this bureau, in common with other bureaus, and the increased activity of the active fleet in target practice has entailed additional work and expense.

A large amount of experimental work has been carried on and designs are being prepared for advances in ordnance material which are not yet adopted. Many tests of new devices have been made, and it is felt that the net result of the year's work has been marked improvement in many details of ordnance material as well as in business administrative methods and that marked economies have been effected in the performance of work at the stations under the direct supervision of the bureau.

THE BUREAU.

The bureau desires again to call attention to the insufficient office space allotted to it, which results in officers and civil employees being so crowded together as to carry on their work under unfavorable conditions. The situation has been slightly relieved during the year by the acquisition of a portion of a room assigned to the Bureau of Steam Engineering, but at such time as conditions make it practicable additional space should be assigned to the bureau.

Legislation by Congress during the last session made it possible to secure a small number of additional clerks for service in the bureau and it is believed that the authorized clerical force is now sufficient for the present needs of the bureau.

A great deal has been accomplished during the year in the way of systematizing the bureau's work, particularly as regards the furnishing of supplies to vessels. This feature of the bureau's work is one which touches the fleet most closely, and is the one in which systematization is the best preparation for war conditions. It has been the bureau's object to arrange its work in such a way that no change in system or methods would be necessary in time of war or other emergency.

GUNS.

The manufacture of the guns required to arm the *New York*, *Texas*, *Oklahoma*, *Nevada*, and destroyers *43–50*, inclusive, has been carried on without interruption by the Washington Navy Yard, the Watervliet Arsenal, the Bethlehem Steel Co., and the Midvale Steel Co. Modifications have been made in a number of 12-inch, 8-inch, 6-inch, and 5-inch guns. All of these guns, as modified, have been placed afloat to replace old batteries or are placed in reserve for such use in the future.

Work has been in progress on lining 50 guns of 8-inch caliber or above and more than 100 guns of caliber less than 8 inch. Relined guns are used for replacing worn guns afloat. Conical lining has been definitely adopted, and in future this method of lining will be used wherever practicable.

An eccentric type of breech plug has been adopted for cartridge-case guns other than those having a sliding-wedge type of breech mechanism. New breech mechanisms of the eccentric-plug type are being fitted to all 3-inch 50-caliber Mark III guns, and these guns, as rapidly as they become available, are being placed in service afloat.

A number of new batteries of 3-inch, 5-inch, 6-inch, and 12-inch guns have been placed on board ship, the old batteries having been withdrawn for modification or lining.

A number of guns of obsolete type, no longer of service to the Navy, have been surveyed and are reserved for loan to patriotic societies or for exhibition purposes.

GUN MOUNTS.

The triple-turret mount mentioned in the bureau's report for the year 1911 has been tested at the Naval Proving Ground and, subject to minor modifications, is satisfactory. The manufacture of the four mounts for the *Oklahoma* and *Nevada* is well under way. This type of mount will be adopted for the four turrets of the one battleship appropriated for at the last session of Congress.

The 14-inch Mark I mounts for the *New York* and *Texas* are nearing completion, and the entire turret design for these vessels is a decided improvement on previous designs. The 14-inch Mark I mount will be installed in the two-gun turrets of the *Oklahoma* and *Nevada*.

Vessels of the *New Jersey* and *Connecticut* classes are all being equipped with 8-inch tube shell hoists as the vessels become available. The 8-inch hoists for the above vessels, complete and ready for installation, have been completed at the Naval Gun Factory. Where the need was apparent certain vessels of the above classes have been fitted with 12-inch tube shell hoists.

Marked improvements have been made in turret telescopes, and the fleet has been supplied with telescopes embodying such improvements.

The ammunition handling arrangements of vessels of the fleet have been greatly improved.

POWDER.

Smokeless powder has been manufactured during the year under the same specifications and, in general, by the same methods as obtained during the preceding year. Numerous minor improvements have been made in methods of manufacture which tend to insure greater uniformity in product, the principal improvement introduced being one whereby the requisite amount of diphenylamine is incorporated in the powder without variation.

The manufacture of powder, as in the past, has been divided between the E. I. du Pont de Nemours Powder Co. and the Government plant at Indian Head. The powder produced by the two establishments is practically identical in character and quality, the methods pursued being, in general, the same and differing only in minor mechanical details.

Experiments have been carried out with powders dried quickly at a high temperature, but these have not yet been carried to a point justifying a definite conclusion as to the value and safety of this method of drying nor as to the effect of the method of drying on the length of life of the powder.

During the year the bureau has been again called upon to reply to misleading statements appearing in foreign journals regarding the quality of American smokeless powder. Owing to the fact that the United States and France both use a nitrocellulose powder the deplorable accident to the French battleship *Liberte* furnished a basis for criticism of the American powder, and for assertions that disasters were to be anticipated in the United States Navy similar to those experienced in the French Navy.. While the two powders are of the same general type, both being nitrocellulose powders, they differ materially in the kind of solvent used, and French official reports show that their methods of manufacture, blending, and reworking are so different from our own as to cause the two powders to be radically different. Recent reports from France are to the effect that all powder now in service is to be withdrawn and replaced by powder exactly like our own. The specifications under which smokeless powder is manufactured for the United States Army and Navy are very stringent in requiring absolute purity of all material used, exceeding care in every portion of its manufacture, and step-by-step inspection of the powder from the raw-material stage to the finished product. The regulations regarding stowage, care, and inspection of smokeless powder, both on shore and aboard ship, are comprehensive, and, so far as the bureau is aware, are very strictly observed. Since the adoption of the present type of smokeless powder by the Navy Department not one accident has occurred due to decomposition or spontaneous ignition of the powder—a record which is probably not paralleled in any other service.

No smokeless powder in which diphenylamine has been incorporated has as yet shown any signs of loss of stability, the oldest lot of powder containing this stabilizer being now four years old.

The experiments with ozokorite as an agent for reducing the erosion of guns were brought to a conclusion during the year, it having been determined that, while powder charges with which ozokorite was mingled produced less erosion than charges containing the same weight of powder but containing no ozokorite, the disadvantages attending the use of ozokorite more than offset its advantages.

The cost of production of powder at the Indian Head factory has been still further reduced during the year, owing, in part, to the fact that a larger quantity of powder was manufactured than during the previous year and partly to direct economies effected in the operation of the plant.

The question of installation of magazine refrigerating apparatus in various ships has arisen from time to time during the year and this bureau has consistently recommended its installation in all large vessels. The bureau can not refrain from emphasizing the fact that the immunity of the United States Navy from serious accidents such as have befallen the French Navy has been due, in part, to the extreme care exercised to keep smokeless powder at a moderate temperature, and wherever the conditions are such as to make high temperatures in magazines possible a refrigerating system should be installed.

PROJECTILES.

There has been no marked change in the design of armor-piercing or common projectiles during the year, but armor-piercing projectiles of higher quality are now being furnished by contractors, partly as a result of the change in specifications referred to in the last annual report and partly due to the natural development of the art of manufacture. One additional firm has taken contracts for projectiles of this character, but has as yet made no deliveries. The bureau believes that the specifications now in force are as severe as can be met by the manufacturers, considering the present state of the art, but there has been no noticeable falling off in the number of successful tests as a result of increased severity of specifications.

The current specifications require projectiles to be furnished in larger lots than hitherto, a change which has materially reduced the work at the proving ground in testing projectiles, the number of lots tested during this fiscal year being 208, as compared with 370 during the previous fiscal year, with only a slight reduction in the total number of projectiles furnished.

An appropriation having been secured for the purpose of modernizing old projectiles on hand, this work has already been undertaken, and by the close of the fiscal year 1914 it is expected that all projectiles of old types which are of sufficiently good quality to warrant their being fitted with long-point caps and modern fuses will be modified to the present standard design.

Several firms have supplied target projectiles of excellent quality during the past year at prices not in excess of those previously paid. Projectiles of obsolete pattern now on hand and which are not of sufficiently good quality to warrant their being modernized for war purposes will be expended at target practice.

ARMOR.

Deliveries of armor by contractors during the year aggregated about 8,300 tons, and about 5,300 tons remain to be delivered to complete the *New York* and *Texas*.

Contracts were awarded during the year for about 15,300 tons of armor plate and appurtenances for battleships 36 and 37, the *Okla-*

homa and *Nevada*, the contracts being allotted in practically equal amounts to the Carnegie Steel Co., the Bethlehem Steel Co., and the Midvale Steel Co.

The specifications for the armor for the *Oklahoma* and *Nevada* are slightly more severe than the previous specifications with respect to the ballistic test. No deliveries of armor for these vessels have as yet been made, the contracts not having been awarded until January, but it is not expected that the armor makers will encounter any serious difficulties in the manufacture of the armor or in meeting the slightly augmented requirements.

No radical changes in composition or methods of manufacture have been introduced during the year, and the quality of armor delivered has been substantially the same as of the armor hitherto furnished. Both cemented and noncemented armor is being supplied, and it can not be definitely stated that either type of armor is superior to the other. Firings against experimental plates made after both processes have shown the possibility of producing armor of slightly higher quality than that already manufactured, and a steady but slow improvement in quality is anticipated.

Special-treatment steel plates for turret tops have shown a steady improvement, owing to changes in composition and methods of manufacture.

FIELD GUNS, MACHINE GUNS, AND SMALL ARMS.

No contracts for the supply of field guns or machine guns have been entered into, other than those referred to in the last Annual Report, and it is believed that no additional guns of these types will be needed for some time to come.

The bureau's attention has been drawn to a new type of rifle-caliber machine gun, the invention of Col. I. N. Lewis, United States Army, which gun seems to present certain advantages over the type of gun now in service. The inventor has been requested to submit a sample gun for test, but has not as yet done so.

Further purchases of the latest model Springfield rifle have been made during the year, and all vessels of the active fleet are now equipped with them.

Arrangements have been made with the Ordnance Department of the Army to supply .45-caliber automatic pistols for the Navy of the same type as those now in use in the Army, and about 3,000 of these have been delivered.

A small number of Maxim silencers for use on the .30-caliber rifle have been purchased for issue to vessels and to training stations.

TORPEDOES AND MINES.

In so far as the design of material is concerned, the torpedo situation has greatly improved during the past year. The two new types of long-range, high-speed torpedoes referred to in the last Annual Report have been built and passed satisfactory test. Although it is not the department's policy to publish details in regard to these weapons, it may be stated that a comparison of the characteristics of these torpedoes with those of the best torpedoes in service abroad indicates that the United States is at least abreast of all foreign countries in this respect. The service is, however, still lacking in numbers of torpedoes, and there is still much to be hoped for in the way of improvement in their handling on board ship, as the number of erratic runs and losses continues to be greater than can be contemplated with satisfaction. There has been a very marked improvement in this respect in the submarine and destroyer flotillas during the year, and it is hoped that a similar improvement will be noted in the battleship fleet.

There has been considerable improvement during the year in the rapidity of manufacture and supply of torpedoes by contractors, and it is anticipated that during the ensuing year, with the funds provided by Congress, a considerable number of torpedoes can be added to the available supply.

The U. S. S. *Montgomery* and the U. S. S. *Vesuvius* have continued their experimental testing work on torpedoes, with very useful and satisfactory results, the *Montgomery* being employed as an experimental ship and the *Vesuvius* as an adjunct to the naval torpedo station. In this capacity the *Vesuvius* is not entirely satisfactory nor suited to the work, and to replace her a torpedo-testing barge is now under construction and will be placed in commission at the opening of the next firing season.

Work on torpedo tubes at the Naval Gun Factory has been carried on in a satisfactory manner, and all tubes required for vessels under construction are either completed or in an advanced state.

The U. S. S. *San Francisco* has been fitted out with a complete war allowance of mines, and further quantities will be purchased as soon as Congress authorizes the necessary expenditure. Experiments are being conducted with several new types of mines, both foreign and domestic, with a view to being prepared to furnish such material of this class as the department's policy may require.

AEROPLANES.

The bureau has, during the year, done some experimental work at the Naval Gun Factory in connection with the mechanical features of aviation, cooperating in this matter with the Bureau of Navigation. Owing to the volume of more immediately necessary work, no considerable progress has been made in the development of ordnance for use against or from air craft. Foreign progress in this matter is being closely watched, and it is thought that at such time as the necessity for ordnance of this character becomes urgent the bureau will be in a position to manufacture suitable material.

ORDNANCE MATERIAL FOR OTHER SERVICES.

During the year practically all vessels of the Revenue-Cutter Service have been equipped with three-pounder or six-pounder guns of latest types, the ordnance being loaned by the Navy Department to the Revenue-Cutter Service for this purpose. The bureau has also cooperated with the Chief of the Revenue-Cutter Division in the Treasury Department in the matter of developing a system of gunnery training and target practice for that service.

On recommendation of the bureau, the department has approved a plan whereby all ordnance material to be used by the Marine Corps, with the exception of small arms, small-arms ammunition, and Infantry equipments, are to be supplied by this bureau, the material being furnished on requisition of post quartermasters and being invoiced to them in all respects as if it were being invoiced to vessels.

The department having previously designated the Marine Corps as the agency for handling material for advance bases, the bureau has during the past year, with the department's approval, undertaken to furnish the necessary material to the Marine Corps under the same conditions as are prescribed for furnishing other ordnance material. It is the intention of the bureau to utilize ordnance material on hand so far as possible for this purpose and to allot a small sum of money each year for the purpose of purchasing new and improved material.

EXPERIMENTAL WORK.

In compliance with the wishes of the Committee on Naval Affairs, House of Representatives, the bureau is preparing to carry out exhaustive experiments with armor-piercing projectiles and with relatively thin-walled projectiles carrying a large charge of high explosive. Special target structures will be built on Experimental Target A (late the *Katahdin*), and it is expected that all preparations will have been completed by the 1st of December, so that the firing can take place shortly after that date.

Coincidently with the preparations for the actual firing experiments at a target, experimental work will be conducted at the proving ground with several types of explosives to determine their sensitiveness, keeping qualities, and effectiveness of explosion. Owing to the very limited facilities of the proving ground as an experimental station and to the danger to life and private property which would attend the explosion of a large shell and possible bursting of guns, the experiments referred to can not be carried out at that station to the extent which would be desirable.

The subject of the flight of projectiles and their action in the air has been investigated and a large amount of data gathered and compiled, all of which tend to confirm the statements made in the last annual report regarding the direction of the axis of a projectile in flight.

NAVAL GUN FACTORY.

The increased volume of work done during the past year, combined with changes in administrative and shop methods and with improvement in facilities for work, has rendered the cost of work less than during any preceding year. The subject of modern management has been given very careful attention with respect to possible application to the Gun Factory of the methods advocated by efficiency engineers. Certain features of the system have been introduced and the bureau is pleased to report that, so far as it is aware, every change made has been acceptable to the employees, so that a real increase in efficiency has been secured without antagonizing labor and without introducing any features into the administration or work which are detrimental to the interests of the workmen.

An enormous amount of drafting and design work is imposed on the drafting force at the Naval Gun Factory owing to the rapid development of ordnance and the constant improvements in details that are being made. It has been found possible to increase the force slightly during the past year, but its size is such that much important work must be deferred or omitted altogether in order that current work may be kept up to date.

The volume of work thrown upon the employees of the chemical and physical laboratory is very great and their progress with the work of the Gun Factory is frequently retarded owing to the large number of coal and other analyses made for other bureaus. New and improved apparatus has been installed during the year, including an electric furnace with measuring instruments and a micro-photographic apparatus for the examination of steel and other metals.

The following is a tabulated summary of the most important work performed at the Gun Factory during the year:

Guns, all calibers.

Completed	100
Partly completed	175
Rebuilding	23
Lined	29
Converted to later models	12
Total	339

Breech mechanisms.

Completed, service type	154
Completed, experimental	3
Converted	115
Total	272

Miscellaneous.

Gun mounts, entire or major portions thereof, built, rebuilt, or extensively modified		261
Turret ammunition hoists		36
Gun sights		289
Drill guns		20
Bore sights		84
Torpedo tubes		31
Powder tanks		8,050
Cartridge cases		16,751
Chests and boxes for ammunition and for smokeless powder		39,841
Primers		79,260
Castings produced in foundry	pounds	3,287,987
Forgings	do	1,398,128
Number of shipments made		1,806
Total weight of shipments	pounds	15,522,494
Number of guns shipped		257
Expenditures, labor and material		$5,690,644.67
Total value of finished work		$6,399,787.33

Construction work on the new foundry, for which money was appropriated by Congress, has been begun and other improvements and additions are in hand which will add to the efficiency and reduce the cost of work at this establishment.

NAVAL PROVING GROUND.

The volume of work performed at this station has been greater during the past year than during any previous year in its history.

This has been accomplished without any increase in the force of officers or classified employees and without materially increased expenditures owing to the improvements in equipment and methods which have been effected.

The following are the principal items of proof work completed:

Guns proved	222
Mounts proved	31
Armor plates tested	84
Lots of projectiles tested	208
Lots of cartridge cases tested	51
Powder tests	126

Among the most interesting and instructive items of experimental work are the following:

Tests of magazine extension primers.
Tests of different types of firing circuit.
Tests of detonating fuses.
Tests of new types of breech mechanism.
Tests of 14-inch gun mounts.
Tests of 1-pounder balloon gun.
Tests to determine the relative merits of series and parallel firing circuits.
Tests of different types of projectile band.
Firing at decapping armor plate.
Exploding shell in a tank of gasoline.

Experiments in the use of obsolete brown powder for fertilizing purposes have been carried on, and the material has been found suitable for this purpose; small quantities of it have been issued to other naval stations.

The addition of two telephone lines between Washington and Indian Head has made it possible to carry on business much more expeditiously, and the acquisition of the former torpedo boat *Talbot* as a passenger ferry between the Washington Navy Yard and the proving ground has facilitated transportation of mail and passengers and has to a marked extent overcome the isolation of the proving ground, which is a serious handicap to the contentment of persons living there.

No accidents resulting in loss of life have occurred at the proving ground or powder factory during the year; there have been 35 cases of minor accidents to employees.

POWDER FACTORY.

The output of this plant for the past year was about one and one-half million pounds of new powder and about 970,000 pounds of reworked powder. The amount of new powder manufactured was about 50 per cent greater and that of reworked powder about 28 per cent greater than for the preceding year. The production costs of new and of reworked powder have been reduced about 10 per cent in each case owing partly to the increased output and partly to improvements in machinery and methods; this reduction was accomplished in spite of advances in price of sulphur, sodium nitrate, and cotton.

MARINE RIFLE RANGE.

The location of the Marine rifle range at Winthrop, Md., continues to be a source of trouble and delay in the work of the proving ground.

In spite of precautions that are taken to insure the safety of the marines and others resident at Winthrop, the possibility of accident always exists; furthermore, the requirements of the service at Winthrop frequently make it necessary to suspend or curtail necessary work at the naval proving ground. The bureau is of the opinion that the rifle range should be removed to some other site where it will not interfere with the conduct of important public work.

NAVAL TORPEDO STATION.

The amount of torpedo repair work which must be performed at this station is constantly on the increase owing to the increased activity of the fleet in torpedo practice. This work is of a type distinct from the manufacturing work and the experimental work performed at the torpedo station, so that the station now serves in a triple capacity—those of an experimental station, a torpedo repair station, and a torpedo factory. During the year there have been received from the service for repair 170 torpedoes, and 161 torpedoes have been issued to vessels aside from the original outfits. Nineteen new outfits have been issued to battleships and torpedo vessels.

The work of manufacture of torpedoes has been carried on in a satisfactory manner, and while no completed torpedoes have been issued during the year, a lot of 75 new torpedoes and the work of rebuilding a lot of 90 old torpedoes will be completed in a few months, and thereafter it is expected that about 90 torpedoes can be completed each year.

The material facilities at the torpedo station for the manufacture and repair of torpedoes are inadequate to the work imposed on the station. Some of the buildings are old and are not only unsuited for modern shop purposes, but they are in some cases structurally weak. Some details of the manufacture are carried on in an uneconomical and inefficient manner on account of lack of space and proper facilities. It is the bureau's desire, without increasing the capacity of the plant for manufacture beyond 100 torpedoes per year, to provide sufficient space to permit of this work being carried on contemporaneously with repair work, neither interfering with the other. The most urgent need of the torpedo station in this respect is floor space for assembling work, and the new building for which the present need is the greatest is the new assembly shop, the work proper to such a shop now being so scattered about the plant as to be done under great difficulties and with loss of economy and efficiency. Estimates will be submitted from time to time for such new buildings as may be necessary to this end.

In addition to torpedo work this station is engaged in the manufacture of primers and has, during the past year, manufactured 105,000. A considerable amount of work has also been done on spare parts and accessories for torpedoes and on mines.

The money value of articles manufactured at this station during the year was $426,472.87, which is practically 50 per cent in excess of the similar figure for the preceding year. Other expenditures at the station, including repairs to torpedoes, maintenance of the station, and miscellaneous expenditures amounted to $495,070.67, an increase of $240,000 as compared with the previous year. As judged by office records the volume of work at the station was about 25 per cent greater than in the previous year. The total weight of stores received and shipped during the year, as shown by bills of lading, was 2,760,238 pounds, an increase of nearly 1,000,000 pounds over the previous year.

The broad principles of modern management have been carefully studied at the torpedo station, and have been applied to such extent as they seemed applicable to conditions there existing. The result of an intelligent study and application of these principles is evident in the increased volume of work that has been done without involving increased cost. At the same time improvements have been made in the general layout of the plant and additional facilities in the way of buildings and tools have been provided, which have permitted of work being done in a more efficient, expeditious, and economical manner. As an example of the economies effected, it may be stated that two types of primers have been manufactured at a reduction of 20 per cent in the cost of labor alone.

A new ferryboat and a steam lighter are urgently needed at this station for the promotion of its efficiency and for reduction in cost of transporting employees and stores.

The seamen gunners' school has received 167 new men for instruction during the year, of whom 92 successfully finished the course and have been transferred to the general service. Sixty-nine remain at the station and will be graduated in two classes on August 31 and December 31, respectively.

The classes of this school at present are not as large as they should be for the maximum benefit to the service. The bureau has been impressed in past years with the lack of capacity of the school and, realizing the prime importance of a properly instructed personnel and the necessity of a properly equipped school for this instruction, has, during the past year, at a sacrifice of some storage space, provided a school building and has provided the necessary equipment. It is gratifying to note that the enlisted men detailed for this instruction have responded to the bureau's action and have, by their application to their studies, shown that they appreciated the added facilities placed at their disposal.

NAVAL MAGAZINES.

HINGHAM, MASS.

Title has been acquired to all the land set aside for the establishment of this magazine with the exception of four parcels amounting to 14.88 acres. The ownership of these parcels has not yet been ascertained and the matter is now in the United States courts for settlement.

Construction of the new drawbridge across the Weymouth Back River, referred to in the last annual report, having been authorized by the State Legislature of Massachusetts, was begun during the month of May.

The facilities for performing work at this magazine have been added to and improved during the year and a large amount of ammunition has been handled.

NEW YORK DISTRICT.

The volume of ammunition work performed at the Iona Island magazine was about 15 per cent greater than during the preceding year. The buildings and grounds at Iona Island, Fort Lafayette, and Lake Denmark are in excellent condition, but, like other magazines on the coast, expansion is necessary to accommodate the increased demands.

Congress having failed to appropriate the necessary funds for dredging a channel to Fort Lafayette, this magazine is now inaccessible to any craft except those of light draft. An estimate will be resubmitted for this work.

FORT MIFFLIN, PA.

This magazine has taken on an increased importance since the Atlantic Reserve Fleet was organized with a base at Philadelphia. In order to fit it properly for a storage and working magazine for the reserve fleet, and for vessels of the active fleet based on Philadelphia, it will be necessary to fill in certain low lands and increase the number of buildings for the stowage of smokeless powder and projectiles. Estimates for the necessary funds to begin this work will be submitted in the annual estimates for the year 1914.

Riprapping of the river bank to protect it against erosion has been practically completed, and no further eating away of the bank is anticipated.

ST. JULIENS CREEK, VA.

The volume of work done at this magazine has been greater than during any previous year in its history, owing to the increased demands of the active fleet and to the number of new vessels added to the fleet. The buildings and equipment have been kept in repair and additions have been made to the equipment so far as authorized by Congress.

MARE ISLAND, CAL

Work at this magazine has been carried on in a satisfactory manner during the year and many improvements have been made in the equipment and in methods of performing work. The principal improvement has been in the installation of a salt-water fire system for the protection of buildings and their contents.

The cost of preparation of ammunition has been reduced about 30 per cent through increased supervision over work, changes in method, and the adoption of time-saving devices.

PUGET SOUND, WASH.

This magazine is not yet fully developed, but sufficient buildings and equipment are completed for carrying on legitimate magazine work. The organization of the Pacific Reserve Fleet, based on the Puget Sound Navy Yard, makes it necessary to develop the equipment facilities of this magazine to render it capable of meeting the demands laid upon it.

BELLEVUE, WASHINGTON, D. C.

This magazine is used for the storage of such explosives as are needed in connection with the work at the Naval Gun Factory. Fire-fighting apparatus and an additional salt-water pump have been installed during the year and the buildings have been kept in repair and used for the storage of records so far as they are not required for the storage of explosives.

KUAHUA, HAWAII.

A naval magazine is under construction at this place in connection with the Pearl Harbor naval station. Construction work is in progress but the magazine is not yet open for work. Temporary storage of ammunition for the naval station at Honolulu is provided by a temporary magazine near the naval station.

OLONGAPO, P. I.

At this station there is maintained not only a naval magazine but a chemical laboratory for the examination and test of smokeless powder and other explosives on the station. A total of 8,830 tests of smokeless powder were made during the year and, in addition, a small amount of experimental and research work has been conducted. It is particularly important to the bureau that this laboratory should be maintained in an efficient condition and capable of doing a large volume of work as, owing to the remoteness of the vessels on the Asiatic Station from the United States, they are largely dependent on the investigations of the Olongapo laboratory for their information regarding the powder carried on board. Climatic conditions at this station are different from those obtaining on the Atlantic coast of the United States and observations and tests made at Indian Head can not be taken as conclusive as regards the condition of powder carried on vessels in the Orient.

PRIVATE MANUFACTURING ESTABLISHMENTS.

Inspectors of ordnance have been stationed at numerous private manufacturing establishments, including shipyards and steel works. A great variety of material has been furnished by these establishments and the quality has been up to the usual standards.

The bureau is particularly pleased to be able to report an improvement in the matter of promptness in filling contracts. Serious delays in this respect are now of much less frequent occurrence than formerly. This change is undoubtedly due in part to the increased familiarity of the contractors with the Government requirements and is partly due to the continued insistence of the department on exact compliance with the terms of the contract and refusal to remit penalties or to grant delays unless such action is clearly just and equitable.

N. C. TWINING.

REPORT OF THE CHIEF OF THE BUREAU OF CONSTRUCTION AND REPAIR.

Navy Department,
Bureau of Construction and Repair,
Washington, D. C., October 16, 1912.

1. I respectfully submit herewith the report of the bureau for the fiscal year ending June 30, 1912, together with estimates for appropriations required for the fiscal year ending June 30, 1914.

2. The estimates marked "A," for the salaries of the clerical employees of the bureau: These estimates show an increase of $3,040, or an increase of about 5 per cent over the amount appropriated for the fiscal year ending June 30, 1913. The total number of clerks will remain the same, the changes desired being an increase in the number of higher-priced clerks. This was considered imperative in view of the number of resignations and transfers which are constantly occurring due to the lack of any reasonable prospect of advancement.

3. The estimates marked "B" are for the construction and repair of vessels at navy yards and on foreign stations; the purchase of stores, materials, machinery, and tools of all kinds; the construction and repair of yard craft; the pay of the clerical, drafting, inspection, and messenger service in navy yards, naval stations, and offices of superintending naval constructors; and the performance of all work for the Navy in the line of construction and repair. These estimates are practically identical with the actual appropriation made by Congress for the fiscal year ending June 30, 1913. In connection with these estimates, the bureau recommended a change in the limitation for pay of classified employees, from $808,039 to $858,039. This recommendation was made in view of the impracticability of making certain absolutely necessary additions to the technical force, and deserving increases in pay among the classified employees in the offices of superintending naval constructors and at navy yards. This estimate also contains an item of $600,000 for the purchase of two testing and wrecking pontoons for submarines. The bureau recommends the approval of this estimate, attention being invited to its letters of October 17, 1910, and May 8, 1911, recommending the purchase of these pontoons, one being intended for service on the Pacific coast and one for service on the Atlantic coast.

4. The estimates marked "C" are for the improvement of the shipbuilding and repair plants at the several navy yards and naval

stations, it having been found desirable in previous years to include estimates for appropriations of this character which may be specifically devoted to the improvement of the hull division shops. Such a provision is necessary in order that such work may not depend entirely upon allotments from the general appropriations, since casualties in the fleet, which could not be foreseen or estimated for, may make it impossible to utilize any considerable portion of the general appropriation for plant improvements. This estimate is less than that for the fiscal year ending June 30, 1911, to the extent of $17,000; less than that for the fiscal year ending June 30, 1912, by $2,000; and less than that for the fiscal year ending June 30, 1913, to the extent of $85,000. Owing to small balances available for the navy yards within the continental limits of the United States, and the necessity for providing a repair plant for the Pearl Harbor Naval Station, the entire amount of the construction plant appropriation for the fiscal year ended June 30, 1913, or $200,000, was assigned to the Pearl Harbor Naval Station. By reason of recent legislation, there will be no balances available under construction plant for the fiscal year ending June 30, 1914; and provision therefor, independent of the main appropriation, is necessary.

5. The estimates marked "D" cover the amounts required by the Bureaus of Construction and Repair and of Steam Engineering under the appropriation "Increase of the Navy; construction and machinery" (including submarine torpedo boats) for work on new vessels already authorized by Congress. These estimates for "Increase of the Navy; construction and machinery" (including submarine torpedo boats) for the fiscal year 1914, as has been the case for similar estimates in previous years, do not include any provision for such new vessels as may hereafter be authorized by Congress. For such further information of the department on the subject of appropriations under "Increase of the Navy," there is given below a statement of the amounts actually appropriated for "Increase of the Navy; construction and machinery" (including submarine torpedo boats and colliers) for each of the preceding eight years, and the estimates for the fiscal year 1914 for continuing work on vessels already authorized:

1906	$30,410,833.00
1907	18,330,829.00
1908	13,213,915.00
1909	18,907,962.00
1910	25,766,823.00
1911	21,805,724.00
1912	15,472,619.67
1913	12,949,173.48
1914	15,609,091.00

The bureau urges a change in the phraseology of the "Increase of the Navy" appropriations for the fiscal year ending June 30, 1914, by the insertion of the words under each appropriation "to be available until expended," in view of the restrictions imposed by section 7 of the sundry civil bill approved August 24, 1912. The provisions of this section make the appropriations made hereafter under "Increase of the Navy" per annum appropriations instead of permanent as has heretofore been the practice, and in order to avoid confusion and embarrassment the bureau strongly recommends the approval of the above request that these appropriations may be made permanent or available continuously.

ESTIMATES SUBMITTED BY THE BUREAU FOR THE FISCAL YEAR 1913–1914.

ESTIMATE A.—*Salaries.*

Detailed objects of expenditures and explanations.	Estimated amount required for each detailed object.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for current fiscal year ending June 30, 1913.
Chief clerk (increase of $500 submitted)	$2,500.00		
Financial clerk (in lieu of one clerk, at $1,800, omitted)	2,000.00		
Clerk of class 4 (decrease of one, as above)	1,800.00		
3 clerks of class 3 (one in lieu of one clerk, at $1,200, omitted)	4,800.00		
3 clerks of class 2, at $1,400 each	4,200.00		
6 clerks, at $1,300 each (3 in lieu of 3 clerks, at $1,000 each, omitted)	7,800.00		
6 clerks of class 1 (4 in lieu of 4 clerks, at $1,000 each, omitted)	7,200.00		
9 clerks, at $1,100 each	9,900.00		
8 clerks, at $1,000 each (decrease of 7, as above)	8,000.00		
5 copyists, at $900 each	4,500.00		
Messenger (in lieu of assistant messenger)	840.00		
Assistant messenger	720.00		
Laborer, at $660	660.00		
3 messenger boys, at $720 each (in lieu of 3 messenger boys, at $600 each, omitted	2,160.00		
4 messenger boys, at $600 each	2,400.00		
2 messenger boys, at $480 each (in lieu of 2 messenger boys, at $600 each, omitted	960.00		
Messenger boy, at $400	400.00		
		$60,840.00	$57,800.00
NOTE.—In the event of the abolishment of the Bureau of Equipment, the following employee (transferred from that bureau) should be appropriated for under "Bureau of Construction and Repair, 1914," $61,840.			
Clerk of class E, at $1,000		1,000.00	1,000.00
"The services of draftsmen and such other technical services as the Secretary of the Navy may deem necessary may be employed only in the Bureau of Construction and Repair and at rates of compensation not exceeding those paid hereunder prior to Jan. 1, 1912, to carry into effect the various appropriations for 'Increase of the Navy' and 'Construction and Repair,' to be paid from the appropriation 'Construction and Repair': *Provided*, That the expenditures on this account for the fiscal year 1914 shall not exceed $88,300. A statement of the persons employed hereunder, their duties, and the compensation paid to each shall be made to Congress each year in the annual estimates."			

Statement of persons employed as draftsmen and for other technical purposes, and the compensation paid to each as required by the legislative, executive, and judicial act of Mar. 4, 1911.

	Per diem.	Per annum.	Total.
1 chief draftsman	$10.00	$3,130.00	$3,130.00
1 leading draftsman	9.00	2,817.00	2,817.00
2 leading draftsmen, each	7.52	2,353.76	4,707.52
1 electrical expert aid	7.52	2,353.76	2,353.76
1 leading draftsman	7.04	2,203.52	2,203.52
6 draftsmen, each	6.48	2,028.24	12,169.44
7 draftsmen, each	6.00	1,878.00	13,146.00
7 draftsmen, each	5.52	1,727.76	12,094.32
1 assistant electrical expert aid	5.52	1,727.76	1,727.76
4 draftsmen, 1st class, each	5.04	1,577.52	6,310.08
6 draftsmen, 2d class, each	4.48	1,402.24	8,413.44
1 draftsman, 3d class	4.00	1,252.00	1,252.00
3 draftsmen, 4th class, each	3.60	1,126.80	3,380.40
3 assistant draftsmen, 1st class, each	3.28	1,026.64	3,079.92
1 assistant draftsman, 2d class	2.96	926.48	926.48
1 assistant draftsman, 4th class (vacant)	2.00	626.00	626.00
Total			$78,337.64

In connection with the above estimates, attention is invited to bureau's letter No. 945–A. 224. of September 10, 1912, from which the following is quoted:

> The bureau in submitting the estimate for the clerical force has made recommendation for certain reratings and increases. This was considered imperative in view of the number of resignations and transfers which are constantly occurring, due to the lack of any reasonable prospects of advancement.

The bureau's losses in its clerical force through resignations and transfers during the past four years were more than 48 per cent of the force employed. Administrative work conducted under such conditions of frequent change is necessarily less efficient and less economical than when greater permanence of employment is assured.

From the estimates it will be noted that the total number of clerks will remain the same. The changes desired are increasing the number of higher-priced clerks, as the bureau's losses, due to resignation and transfer, are directly attributable to the insufficient number of higher ratings as compared with those in other branches of the public service and in civil life for men of equal merit. As the work of this branch of the Navy Department is largely of a technical nature, it is especially important that experienced clerks should be encouraged to remain in its employ, and it is believed that this result can only be obtained by providing reasonable promotion in general conformity with the recommendations contained herein.

The net total increase in the clerical force as proposed is only $3,040, or approximately 5 per cent of the present pay roll. It is strongly recommended that it be approved, in view of the greater increased cost of living, if for no other reason. The increase of $500 submitted for the chief clerk over the pay of that employee is considered by the bureau to be especially merited, in view of the importance of the position, the exacting duties of the chief clerk, and the general qualifications of the present incumbent.

ESTIMATE B.—*Construction and repair of vessels.*

Detailed objects of expenditures and explanations.	Estimated amount required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for current fiscal year ending June 30, 1913.
For preservation and completion of vessels on the stocks and in ordinary; purchase of materials and stores of all kinds; steam steerers, pneumatic steerers, steam capstans, steam windlasses, aeroplanes, and all other auxiliaries; labor in navy yards and on foreign stations; purchase of machinery and tools for use in shops; carrying on work of experimental model tank; designing naval vessels; construction and repair of yard craft, lighters, and barges; wear, tear, and repair of vessels afloat; general care, increase, and protection of the Navy in the line of construction and repair; incidental expenses for vessels and navy yards, inspectors' offices, such as photographing, books, professional magazines, plans, stationery, and instruments for drafting room, and for pay of classified force under the bureau, eight million four hundred and seventy-nine thousand one hundred and forty-four dollars: *Provided*, That no part of this sum shall be applied to the repair of any wooden ship when the estimated cost of such repairs, to be appraised by a competent board of naval officers, shall exceed 10 per centum of the estimated cost, appraised in like manner, of a new ship of the same size and like material: *Provided further*, That no part of this sum shall be applied to the repair of any other ship when the estimated cost of such repairs, to be appraised by a competent board of naval officers, shall exceed 20 per centum of the estimated cost, appraised in like manner, of a new ship of the same size and like material: *Provided further*, That nothing herein contained shall deprive the Secretary of the Navy of the authority to order repairs of ships damaged in foreign waters or on the high seas, so far as may be necessary to bring them home: *Provided further*, That the sum to be paid out of this appropriation, under the direction of the Secretary of the Navy, for clerical, drafting, inspection, and messenger service in navy yards, naval stations, and offices of superintending naval constructors, for the fiscal year ending June 30, 1914, shall not exceed $858,039....................	$8,479,144.00	$8,479,144.00	$8,479,144.00
Construction and repair of vessels—Wrecking pontoons: For purchase of two testing and wrecking pontoons for submarines, to be available until expended.......	600,000.00	600,000.00	....
	9,079,144.00	9,079,144.00	8,479,144.00

NOTE.—In the event of the abolishment of the Bureau of Equipment the above estimates under appropriation "Construction and repair of vessels, 1914," should be increased to a total of $10,281,544, and the following substituted for the above text, viz:

"For preservation and completion of vessels on the stocks and in ordinary; purchase of materials and stores of all kinds, steam steerers, pneumatic steerers, steam capstans, steam windlasses, aeroplanes, and all other auxiliaries; labor in navy yards and on foreign stations; purchase of machinery and tools for use in shops; carrying on work of experimental model tank; designing naval vessels; construction and repair of yard craft, lighters, and barges; wear, tear, and repair of vessels afloat; general care, increase, and protection of the navy in the line of construction and repair; incidental expenses for vessels and navy yards, inspectors' offices, such as photographing, books, professional magazines, plans, stationery, and instruments for drafting room, and for pay of classified force under the bureau; for hemp, wire, iron, and other materials for the manufacture of cordage, anchors, cables, galleys, and chains, specifications for purchase thereof shall be so prepared as shall give fair and free competition; canvas for the manufacture of sails, awnings, hammocks, and other work; interior appliances and tools for manufacturing purposes in navy yards and naval stations; and for the purchase of all other articles of equipage at home and abroad, and for the payment of labor in equipping vessels therewith and manufacture of such articles in the several navy yards; naval signals and apparatus, other than electric, namely, signals, lights, lanterns, rockets, running lights, lanterns and lamps and their appendages for general use on board ship for illuminating purposes, and oil and candles used in connection therewith; bunting and other materials for making and repairing flags of all kinds; for all permanent galley fittings and equipage; rugs, carpets, curtains, and hangings on board naval vessel, $10,281,544: *Provided*, That no part of this sum shall be applied to the repair of any wooden ship when the estimated cost of such repairs, to be appraised by a competent board of naval officers, shall exceed 10 per centum of the estimated cost, appraised in like manner, of a new ship of the same size and like material: *Provided further*, That no part of this sum shall be applied to the repair of any other ship when the estimated cost of such repairs, to be appraised by a competent board of naval officers, shall exceed 20 per centum of the estimated cost, appraised in like manner, of a new ship of the same size and like material: *Provided further*, That nothing herein contained shall deprive the Secretary of the Navy of the authority to order repairs of ships damaged in foreign waters or on the high seas, so far as may be necessary to bring them home: *Provided further*, That the sum to be paid out of this appropriation under the direction of the Secretary of the Navy, for clerical, drafting, inspection, and messenger service in navy yards, naval stations, and offices of superintending naval constructors, for the fiscal year ending June 30, 1914, shall not exceed $858,039.

"In all, construction and repair of vessels, 1914, $10,281,544."

ESTIMATE C.—*Improvement of construction plants.*

Detailed objects of expenditures and explanations.	Estimated amount required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for current fiscal year ending June 30, 1913.
For repairs and improvements of plant at:			
Navy yard, Portsmouth, N. H.	$10,000.00	$10,000.00	
Navy yard, Boston, Mass.	20,000.00	20,000.00	
Navy yard, New York, N. Y.	20,000.00	20,000.00	
Navy yard, Philadelphia, Pa.	15,000.00	15,000.00	
Navy yard, Norfolk, Va.	15,000.00	15,000.00	
Navy yard, Charleston, S. C.	10,000.00	10,000.00	
Navy yard, Mare Island, Cal.	15,000.00	15,000.00	
Navy yard, Puget Sound, Wash.	10,000.00	10,000.00	
Improvement of construction plants, Pearl Harbor, Hawaii			$200,000.00
Total	115,000.00	115,000.00	$200,000.00

ESTIMATE D.—*Increase of the Navy: Construction and machinery; Increase of the Navy: Torpedo boats; and Increase of the Navy: Colliers.*

Detailed objects of expenditures and explanations.	Estimated amount required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation.	Amount appropriated for current fiscal year ending June 30, 1913.
Increase of the Navy:			
Construction and machinery (on account of hull and outfits of vessels, and steam machinery of vessels heretofore authorized) to be available until expended	$13,550,728.00	$13,550,728.00	$9,846,205.00
Torpedo boats (on account of submarine torpedo boats heretofore authorized), to be available until expended	2,058,363.00	2,058,363.00	2,521,647.00
Colliers (on account of two fleet colliers heretofore authorized)			581,321.48
Total	15,609,091.00	15,609,091.00	12,949,173.48

NOTE.—The above does not include any money for new ships which may be authorized at the next session of Congress.

WASHINGTON, D. C., *October 17, 1912.*

SIR: In compliance with the department's instructions the bureaus submit herewith on the regular forms joint estimates (see estimate sheet "D" and comparative sheet herewith sheet "D-1") under appropriations "Increase of the Navy, construction and machinery" and "Increase of the Navy, torpedo boats" for the fiscal year 1914 for work on new vessels heretofore authorized by Congress.

Attention is invited to the fact that the above estimates do not include any money for new ships that may be authorized at the next regular session of Congress, as no information has been received relative to the number, type, and character of new vessels of the building program for 1914.

The bureaus have changed the phraseology of the "Increase of the Navy" appropriations by the insertion of the words under each appropriation "to be available until expended," in view of the restrictions imposed by section 7 of the sundry civil bill approved August 24, 1912. As already stated by the bureaus, in their letter of September 18, 1912, forwarding preliminary estimates, the provisions of this section make the appropriations made hereafter per annum appropriations instead of permanent, as has heretofore been the practice. In this connection the bureaus beg to invite attention to the fact that if the appropriations made for the fiscal year ending June 30, 1914 under "Increase of the Navy" are not made permanent or available continuously, the estimates submitted herewith under these appropriations will be entirely insufficient for the fiscal year ending June 30, 1914, as these estimates are submitted on the basis that the balances on hand June 30, 1913, will be available for the fiscal year 1914.

"INCREASE OF THE NAVY, CONSTRUCTION AND MACHINERY."

Under the Bureau of Construction and Repair; for the fiscal year—		
1913	$13,020,840.00	
1914	10,952,398.00	
		$23,973,238.00
Under the Bureau of Steam Engineering; for fiscal year—		
1913	$7,642,015.00	
1914	7,280,000.00	
		14,922,015.00
Total estimated expenditures		38,895,253.00
Amount available to pay on the above:		
Balance July 1, 1912	$15,498,320.00	
Appropriated per naval act of Aug. 22, 1912	9,846,205.00	
		25,344,525.00
Appropriation required for fiscal year 1914		13,550,728.00

"INCREASE OF THE NAVY, TORPEDO BOATS."

Under the Bureau of Construction and Repair, for fiscal year—		
1913	$3,143,198.00	
1914	1,742,539.00	
		4,885,737.00
Under the Bureau of Steam Engineering, for fiscal year—		
1913	$1,679,008.00	
1914	1,675,000.00	
		3,354,008.00
Total estimated expenditures		8,239,745.00
Amount available to pay on the above:		
Balance July 1, 1912	$3,659,735.00	
Appropriated per naval act of Aug. 22, 1912	2,521,647.00	
		6,181,382.00
Appropriation required for fiscal year 1914		2,058,363.00

R. M. WATT.
H. I. CONE.

The SECRETARY OF THE NAVY.

SHIPBUILDING WORK AT NAVY YARDS.

The new shipbuilding work now in progress or authorized at navy yards includes the construction of the battleship *New York* at the navy yard, New York, the construction of the collier *Jupiter* at the navy yard, Mare Island, and the construction of the river gunboats *Monocacy* and *Palos* at the navy yard, Mare Island. Further, the appropriation act for the naval service for the fiscal year ending June 30, 1913, approved August 22, 1912, authorized—

> Two fuel ships to cost, exclusive of armor and armament, not to exceed $1,140,000 each, and which shall be built in navy yards, one to be built in a navy yard on the Pacific coast.

It is apparent, therefore, that for several years to come the navy yards New York and Mare Island—the only yards fully equipped for the construction of large vessels—will have shipbuilding work in addition to the ship repair work which is regularly assigned to them.

Battleship "Florida."—The U. S. S. *Florida* was brought to 100 per cent completion during the past fiscal year at the navy yard, New York. Her construction was authorized by the naval appropriation act approved May 3, 1908, and the constructional period was placed at 32 months from November 24, 1908.

Her keel was laid March 9, 1909; she was launched May 12, 1910. She was commissioned September 15, 1911, and left the navy yard October 30, 1911, completed except as regards her official trial, which was later carried out very successfully.

Battleship "New York."—The U. S. S. *New York* is now under construction at the navy yard, New York. Her construction in a navy yard was authorized by the naval appropriation act approved June 24, 1910, and the Secretary of the Navy designated the navy yard, New York, as the place of building.

When estimates of the cost of construction of this battleship were received in the department, it was found that they exceeded the limit of cost imposed by Congress in the naval appropriation act, and in accordance with an opinion of the Attorney General, the Secretary of the Navy suspended all work on the vessel. The Secretary of the Navy reported the fact to Congress and the naval appropriation act of March 4, 1911, contained the following provision:

> * * * and the limit of cost, exclusive of armor and armament, of the battleship authorized and directed by the naval appropriation act approved June 24, 1910, to be constructed in one of the navy yards, is hereby increased to $6,400,000, exclusive of indirect charges.

Upon the passage of the act the work of preparation for building the vessel was immediately resumed.

The naval appropriation act of March 4, 1911, contained also the following provision:

> *Provided*, That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who have combined or conspired to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture.

and the placing of contracts for the material of the *New York* was again delayed pending an opinion by the Attorney General as to the steps necessary to insure compliance with the above provision. The necessary procedure having been determined, contracts for material were placed, and the keel of the *New York* was laid September 11, 1911. By decision of the department the constructional period of 36 months is considered as beginning May 1, 1911.

This vessel was launched October 30, 1912. On November 1, 1912, the hull of the *New York* was reported as 62.5 per cent completed and the machinery as 47 per cent completed. Her completion within the constructional period set by the department is anticipated.

Collier "Jupiter."—The circumstances relating to the construction of this fleet collier at the navy yard, Mare Island, are as follows:

The act making appropriations for the naval service for the fiscal year ending June 30, 1909 (approved May 13, 1908), contained the following provision:

> Two fleet colliers of 14 knots trial speed, when carrying not less than 12,500 tons of cargo and bunker coal. One of said colliers to be built in such Government yard on the Pacific coast as the Secretary of the Navy shall direct. Cost not to exceed $1,800,000 each, and toward the construction of both $1,500,000 is hereby appropriated.

Shortly after the passage of the above-noted appropriation bill the department advertised for proposals from private shipbuilding firms for the construction of one of these colliers by contract. On account of the great scarcity of work in shipyards at the time of inviting proposals for the construction of this collier, the bids received were unusually low, and the department was able to place a contract for the construction of this vessel at a price less than half of the limit of cost authorized by Congress for said construction. The department therefore determined to bring this fact to the attention of Congress, and to request authority to place contracts for four colliers at a total price not exceeding that already authorized for the construction of the two colliers specified in the naval appropriation bill of May 13, 1908. A recommendation to this effect from the Secretary of the Navy received the favorable consideration of the Naval Committee of the House, and a clause practically embodying the department's recommendation was incorporated in the naval appropriation bill as reported to the House. The naval committee's clause relating to the construction of colliers was, however, considerably modified before the bill actually passed the House, and was still further modified in the bill as it finally passed the House and the Senate, the act of March 3, 1909, containing the following provision for colliers, under the general heading "Increase of the Navy."

> One fleet collier of 14 knots trial speed when carrying not less than 12,500 tons of cargo and bunker coal, to cost not exceeding $900,000.
>
> * * * * * * *
>
> *Provided*, That no part of the above appropriation shall be used for the payment of the construction of any collier the total cost of which shall exceed $900,000.

Shortly after the passage of the naval act of March 3, 1909, the bureau, under the authority of the department, directed that there be made at the navy yard, Mare Island, careful estimates of the cost of constructing at that yard the hull and machinery of a collier such as that authorized in the naval acts of May 13, 1908, and March 3, 1909. These estimates when submitted showed conclusively that the collier could not be built within the limit of cost fixed by Congress in the act of March 3, 1909, and the department decided to report all the facts to Congress before taking any further steps.

The naval appropriation bill, approved June 24, 1910, contained the following provisions:

> * * * *Provided*, That the unexpended balance of the sum of $1,500,000 appropriated toward the construction of two fleets colliers authorized by the naval appropriation act approved May 13, 1908 is hereby reappropriated and made available for the construction of the collier therein designated to be built on the Pacific coast in such Government yard as the Secretary of the Navy shall direct: *Provided further*, That the cost of said collier shall not exceed the sum of $1,000,000.

The previous estimates of the cost of construction of this collier at the navy yard, Mare Island, exceeded the above-noted limit of cost imposed by Congress; but in order that the estimates should be brought up to date, additional estimates were requested from that navy yard. The estimate of cost of construction of this collier when received from the navy yard, Mare Island, indicated clearly that this collier could not be built at a navy yard within the limit of cost imposed by Congress, namely, $1,000,000.

The facts were again reported to Congress, and the naval appropriation bill approved March 4, 1911, contained the following express provision, which met the estimates for cost of construction received from the Mare Island yard:

> *Provided*, That the limit of cost of the collier authorized and directed by the naval appropriation act, approved May 13, 1908, to be built in such Government yard on the Pacific coast as the Secretary of the Navy shall direct, is hereby increased from the modified $1,000,000 limit of cost imposed by the act of June 24, 1910, to $1,200,000, exclusive of indirect charges.

In accordance therewith, the Mare Island yard was directed to proceed with the construction of the vessel; and upon determination of the type of propelling machinery the constructional period was fixed at 22 months from July 3, 1911.

The keel of the *Jupiter* was laid October 18, 1911, and the vessel was successfully launched August 24, 1912. On November 1, 1912, the hull of the *Jupiter* was reported as 85.6 per cent completed, including 2.9 per cent material on hand, and 83.7 per cent work on ship and in shops. The machinery was reported as 56.8 per cent completed.

River gunboat "Monocacy."—The U. S. S. *Monocacy* was authorized by act of Congress of March 4, 1911. Bids were invited for her construction, in the usual manner, and four navy yards were asked to submit estimates. Only one bid was received from a private shipbuilding company, and that practically at the limit of cost imposed by Congress. As the estimates received from navy yards were materially less than the one bid received, the Bureau of Construction and Repair and the Bureau of Steam Engineering jointly recommended to the department that the construction be undertaken at Mare Island Navy Yard. The Secretary of the Navy ordered Mare Island to proceed with the construction of this vessel on August 13, 1912.

River gunboat "Palos."—The naval appropriation act of August 22, 1912, made available for the construction of a river gunboat the appropriation contained in the act of May 4, 1898, for one gunboat to be built on the Great Lakes.

In view of the department's experience in obtaining bids for the construction of the *Monocacy*, the improbability of obtaining bids at the time to the advantage of the Government, the existing demands for river gunboats on the China station, and the time saved in starting the work, the department on August 23, 1912, ordered that this vessel be constructed at the navy yard, Mare Island, simultaneously with the building of the *Monocacy*.

THE EIGHT-HOUR LAW

The three battleships *Texas*, *Nevada*, and *Oklahoma* at present under contract are building under the eight-hour law. The average price per ton of normal displacement of the three vessels in question, building under the eight-hour law, is $215.26. The average price of the preceding battleships built by contract when the hours of labor were unrestricted was $177.25 per ton of normal displacement for the three preceding and $189.99 per ton for the five preceding vessels. The appropriation act approved August 22, 1912, applies the eight-hour law to all new construction authorized therein by the following language:

> The act entitled "An act limiting the hours of daily service of laborers and mechanics employed upon work done for the United States, or for any Territory or for the District of Columbia, and for other purposes," approved June 19, 1912, shall be in force as to all contracts authorized by this act from and after the passage of this act.

RAPIDITY OF CONSTRUCTION.

The annual report of the Chief of the Bureau of Construction and Repair for 1910 compared the rapidity of battleship construction in this and foreign countries, and demonstrated by tables that "the rapidity of construction in the United States is greater than the average rate of construction in the principal foreign ship-building countries."

Notwithstanding the recent marked increase in sizes of vessels, the time required for construction remains practically unchanged, and the rapidity of construction in the United States, both for battleships and destroyers recently completed without restriction as to hours of labor, continues greater than the average rate of construction in the principal foreign shipbuilding countries. The effect of the eight-hour law upon rapidity of construction is as yet indeterminate.

VESSELS SURVEYED.

The vessels named in the following table have been surveyed and repairs authorized during the past fiscal year:

Name.	Where surveyed.	Date of survey.	Estimated cost of repairs.
Adams	Philadelphia	Dec. 5, 1911	$9,620.00
Ajax	New York	Sept. 6, 1911	3,941.80
Alabama	New York	June 24, 1911	3,205.00
Annapolis	Mare Island	Nov. 17, 1911	39,378.00
Brutus	Charleston	Feb. 1, 1912	3,664.48
Bainbridge	Shanghai, China	May —, 1912	18,660.00
C-1	New York	Dec. 27, 1911	4,409.47

Name.	Where surveyed.	Date of survey.	Estimated cost of repairs.
C-2	Norfolk	Jan. 31, 1912	$10,274.60
C-3	Norfolk	Feb. 1, 1912	11,312.65
C-4	Norfolk	Jan. 30, 1912	11,938.17
C-5	Norfolk	Jan. 31, 1912	8,759.34
Cæsar	Charleston	Dec. 15, 1911	7,923.54
California	Mare Island	July 17, 1911	37,522.00
Chester	Boston	May —, 1912	17,244.59
Connecticut	New York	Ang. 15, 1911	24,018.16
Culgoa	New York	Oct. 25, 1911	32,683.00
Cyclops	Norfolk	Aug. 21, 1911	3,584.08
D-1	Norfolk	Dec. —, 1911	7,008.33
D-1	Norfolk	May 17, 1912	4,627.76
D-2	Norfolk	Dec. 13, 1911	7,384.33
D-3	Norfolk	Dec. —, 1911	6,109.58
Decatur	Cavite	June 14, 1911	3,904.09
Delaware	New York	Feb. 21, 1912	68,220.43
Denver	Mare Island	July 28, 1911	5,970.00
Des Moines	Boston	Aug. —, 1911	7,275.96
Des Moines	Boston	Feb. 24, 1912	31,390.37
Dixie	New York	Sept. 29, 1911	12,545.85
Dolphin	New York	Oct. 28, 1911	21,574.00
Eagle	Portsmouth, N. H	July 17, 1911	3,473.00
Flusser	Norfolk	Dec. 12, 1911	3,770.50
Georgia	Boston	Aug. —, 1911	24,101.95
Georgia	Boston	Jan. —, 1912	54,205.90
Georgia	Boston	June —, 1912	123,497.94
Hannibal	Portsmouth, N. H	Aug. 23, 1911	25,750.00
Hector	Norfolk	Aug. 11, 1911	6,286.75
Illinois	Boston	Nov. —, 1911	385,205.36
Indiana	Philadelphia	Dec. 21, 1911	7,014.79
Iowa	Philadelphia	do	12,443.27
Iroquois	Mare Island	July 21, 1911	14,278.00
Justin	Mare Island	July 28, 1911	14,226.44
Justin	Mare Island	May 31, 1912	9,310.00
Kansas	Norfolk	Oct. 13, 1911	41,278.55
Kansas	Norfolk	Jan. 27, 1912	25,982.23
Kansas	Norfolk	May 11, 1912	4,583.91
Kentucky	Norfolk	June 4, 1912	58,022.40
Lamson	Norfolk	Jan. 10, 1912	3,537.63
Lebanon	Norfolk	Oct. 13, 1911	6,320.64
Lebanon	Charleston	July 13, 1911	19,793.50
Louisiana	Norfolk	Apr. 17, 1912	4,593.12
Louisiana	Norfolk	Sept. 19, 1911	18,489.81
Marietta	Portsmouth, N. H	Sept. 29, 1911	3,626.00
Mars	Norfolk	Nov. 18, 1911	11,142.05
Massachusetts	Philadelphia	Dec. 22, 1911	3,730.67
Mayflower	Washington, D. C	Mar. 13, 1912	3,318.66
Mayflower	New York	Nov. 28, 1911	11,519.70
Mississippi	Philadelphia	Jan. 4, 1912	11,320.00
Missouri	Boston	July —, 1911	51,081.64
Montana	Portsmouth, N. H	Dec. 8, 1911	20,329.00
Morris	New York	Nov. 6, 1911	3,259.83
Nashville	Boston	Aug. 23, 1911	12,397.00
Nebraska	Boston	Dec. —, 1911	118,780.00
Nero	New York	Oct. 19, 1911	42,860.27
New Hampshire	Norfolk	Feb. 5, 1912	26,211.10
New Hampshire	Norfolk	Oct. 2, 1911	7,471.92
New Jersey	Boston	Aug. —, 1911	21,123.34
New Orleans	Puget Sound	Apr. 9, 1912	26,837.45
North Carolina	Portsmouth, N. H	June 30, 1911	68,624.00
North Dakota	Norfolk	Apr. 20, 1912	3,376.68
North Dakota	New York	Sept. 30, 1911	27,951.48
Paducah	Portsmouth, N. H	Oct. 30, 1911	3,954.65
Panther	New York	Apr. 9, 1912	17,086.74
Paulding	New York	May 3, 1912	4,255.36
Paul Jones	Mare Island	Jan. 26, 1912	6,869.00
Pawnee	New York	May 7, 1912	6,777.44
Pennsylvania	Puget Sound	Nov. 14, 1911	31,476.28
Peoria	Charleston	Jan. 12, 1912	9,028.00
Petrel	Portsmouth, N. H	Sept. 5, 1911	5,226.00
Philadelphia	Puget Sound	Dec. 5, 1911	6,975.00
Potomac	Charleston	Apr. 23, 1912	4,817.07
Potomac	Charleston	Aug. 4, 1911	8,902.42
Prairie	Charleston	Feb. 1, 1912	8,314.10
Preston	Norfolk	Apr. 22, 1912	3,320.02
Princeton	Puget Sound	Aug. 16, 1911	7,969.76
Puritan	Norfolk	July 5, 1911	11,539.38
Puritan	Norfolk	Aug. 30, 1911	50,160.00
Rainbow	Olongapo	Aug. 7, 1911	10,571.75
Reid	Norfolk	Nov. 4, 1911	3,148.46
Roe	New York	Mar. 11, 1912	9,715.82
Roe	New York	Sept. 28, 1911	6,767.44
Salem	New York	Feb. 20, 1912	8,205.75

Name.	Where surveyed.	Date of survey.	Estimated cost of repairs.
San Francisco	Norfolk	Nov. 20, 1911	$123, 134.71
San Francisco	Norfolk	Apr. 27, 1912	6,479.98
Saratoga	Olongapo	June —, 1911	4,821.76
Saturn	Puget Sound	Sept. 16, 1911	14,317.00
Smith	Norfolk	Jan. 10, 1912	4,465.60
Solace	New York	May 7, 1912	17,701.08
South Carolina	Norfolk	Apr. 24, 1912	9,893.86
South Carolina	Norfolk	Oct. 2, 1911	24,110.59
South Dakota	Mare Island	July 19, 1911	15,345.00
Standish	Norfolk	Apr. 6, 1912	3,074.23
Sterett	New York	Feb. 8, 1912	4,579.91
Sterling	Norfolk	May 21, 1912	5,159.88
Stringham	Norfolk	Jan. 23, 1912	4,078.65
Supply	Olongapo	Apr. 15, 1912	4,912.00
Tacoma	New York	July 19, 1911	22,285.00
Tallahassee	Norfolk	Apr. 8, 1912	4,269.64
Tallahassee	Norfolk	Aug. 11, 1911	10,756.10
Terry	New York	Mar. 4, 1912	5,202.18
Terry	Norfolk	Mar. 20, 1912	5,321.90
Tingey	Charleston	Jan. 22, 1912	1,329.00
Tonopah	New York	Jan. 11, 1912	14,538.00
Truxtun	Mare Island	Jan. 20, 1912	13,072.00
Vermont	Norfolk	Sept. 25, 1911	19,957.50
Vermont	Norfolk	Apr. 27, 1912	74,738.61
Virginia	Boston	Feb. —, 1912	18,363.00
Virginia	Boston	Jan. —, 1912	57,133.72
Vulcan	Norfolk	Sept. 25, 1911	4,443.00
Warrington	Norfolk	Mar. 8, 1912	36,542.60
Whipple	Mare Island	July 19, 1911	6,185.30
Yankton	New York	May 13, 1912	2,219.00

INSPECTION OF MATERIAL.

The total quantity of material inspected by the bureau and the amount passed and shipped for incorporation into naval vessels under construction or repair shows an increase over the preceding year. The total quantity submitted for inspection during the fiscal year ending June 30, 1912, was 121,920,658 pounds, as compared with a total of about 77,504,700 pounds for the fiscal year ending June 30, 1911. The distribution of this material among the several districts into which the inspection work is divided, as well as the quantities rejected for various causes, percentage of rejection, etc., are given in the tables below:

Summary of work performed by steel inspectors under the Bureau of Construction and Repair for the eastern and western districts during the fiscal year ending June 30, 1912.

	Eastern district.	Western district.	Total.
Total amount of material rolled and inspected........pounds..	61,439,305	60,481,353	121,920,658
Amount rejected for physical tests........do....	5,233,852	1,755,694	6,989,546
Percentage rejected for physical tests........	8.52	2.90	5.74
Amount rejected for chemical tests........pounds..	1,097,182	113,253	1,210,435
Percentage rejected for chemical tests........	1.79	.187	.99
Amount rejected for surface defects........pounds..	2,588,353	10,460,184	13,048,537
Percentage rejected for surface defects........	4.21	17.29	10.70
Amount rejected for all causes........pounds..	8,919,387	12,329,131	21,248,518
Percentage rejected for all causes........	14.51	20.38	17.43
Scrap........	17,236,412	9,472,617	26,709,029
Total amount of material accepted and shipped........	35,283,506	38,679,605	73,963,111

The following table shows the distribution of material among vessels building, etc.:

Detail statement of shipment of material from the eastern and western districts for the fiscal year ending June 30, 1912.

Name of vessel, etc.	Eastern district.	Western district.	Total.
	Pounds.	*Pounds.*	*Pounds.*
Arkansas	399,480	267,484	666,964
Aylwin	622,116	104,046	726,162
Balch	615,361	104,046	719,407
Beale	36,432	....	36,432
Benham	616,844	104,046	720,890
Cassin	61,111	597,887	658,498
Culgoa	5,084	....	5,084
Cummings	57,836	625,682	683,518
Downes	557,219	35,903	593,122
Duncan	18.768	729,190	747,958
Fanning	96,862	11,552	108,414
Henley	38,939	3,545	42,484
Jarvis	79,446	4,135	83,581
Jenkins	41,040	13,219	54,259
Jouett	38,712	13,219	51,931
Monaghan	50	....	50
Nereus	2,923,709	1,251,677	4,175,386
Nevada	93,890	2,728,160	2,822,050
New York	11,819,217	6,536,619	18,355,836
Oklahoma	362,555	5,200,357	5,562,912
Parker	616,793	104,046	720,839
Patterson	148	....	148
Proteus	2,909,407	1,161,172	4,070,579
Texas	1,644,682	7,617,258	9,261,940
Turbot	5,901	....	5,901
Utah	15,611	100	15,711
Warrington	18,785	....	18,785
Wyoming	497,051	74,859	571,910
G-2	402	....	402
G-3	19,038	95,162	114,200
G-4	1,153	....	1,153
H-1	1,693	13,554	15,247
H-2	463	13,554	14,017
H-3	463	13,502	13,965
K-1	10,388	427,326	437,714
K-2	769	387,516	388,285
K-3	39,460	349,964	389,424
K-4	39,459	377,165	416,624
K-5	574	423,237	423,811
K-6	422	430,756	431,178
K-7	....	341,169	341,169
K-8	....	381,719	381,719
Contracts and requisitions	10,976,173	8,187,279	19,113,452
Total	35,283,506	38,679,605	73,963,111

Orders for material requiring inspection were distributed among the following manufacturers:

EASTERN DISTRICT.

Albro-Clem Elevator Co	Philadelphia, Pa.
American Iron & Steel Manufacturing Co	Reading, Pa.
American Iron & Steel Manufacturing Co	Lebanon, Pa.
American Pressed Steel Co	Pine Forge, Pa.
American Paring Machine Co	Philadelphia, Pa.
Armstrong Cork Co	Camden, N. J.
Baldt Steel Co	Newcastle, Del.
Baldt Anchor Co	Chester, Pa.
Baltimore Copper Smelting & Refining Co	Baltimore, Md.
Bliss, E. W., & Co	New York, N. Y.
Bethlehem Steel Co	South Bethlehem, Pa.
Boyd, Jas., & Bro	Philadelphia, Pa.
Bradlee & Co	Philadelphia, Pa.
Brylgon Steel Casting Co	Newcastle, Del.
Camden Forge Co	Camden, N. J.

Cattie Bros	Philadelphia, Pa.
Carpenter Steel Co	Reading, Pa.
Central Iron & Steel Co	Harrisburg, Pa.
Chester Steel Casting Co	Chester, Pa.
Clad, V., & Sons	Philadelphia, Pa.
Clinton, E., Co	Philadelphia, Pa.
Cook Pottery Co	Trenton, N. J.
Cory, Chas., & Son	New York, N. Y.
Cramp, Wm., & Sons Ship & E. B. Co	Philadelphia, Pa.
Crane & Co	Baltimore, Md.
Cuyler & Mohler Co	Baltimore, Md.
Darby, Edw., & Sons	Philadelphia, Pa.
Dexter Portland Cement Co	Nazareth, Pa.
Eastern Steel Co	Pottsville, Pa.
Electric Launch Co	Bayonne, N. J.
Elliot Galvanizing Co	Jersey City, N. J.
Empire Galvanizing Co	Philadelphia, Pa.
Este, Chas., Co	Philadelphia, Pa.
Eureka Fire Hose Manufacturing Co	Jersey City, N. J.
Eynon-Evans Co	Philadelphia, Pa.
Federal Steel Foundry Co	Chester, Pa.
Filter, E. H., & Co	Philadelphia, Pa.
Hamilton Rubber Co	Trenton, N. J.
Harrisburg Pipe & Pipe Bending Co	Harrisburg, Pa.
Hayward, S. F., & Co	New York, N. Y.
Hazard Manufacturing Co	Wilkes-Barre, Pa.
Hendricks Bros. Co	Soho, N. J.
Hermance Machine Co	Williamsport, Pa.
Hoopes & Townsend Co	Philadelphia, Pa.
Hubbert, B. H., Co	Baltimore, Md.
Insinger Co	Philadelphia, Pa.
J. C. H. Galvanizing Co	Philadelphia, Pa.
Keystone Steel Casting Co	Chester, Pa.
Landis Machine Co	Waynesboro, Pa.
Lebanon Chain Co	Lebanon, Pa.
Lidgerwood Manufacturing Co	Brooklyn, N. Y.
Link Belt Engineering Co	Philadelphia, Pa.
Lovell, F. H., & Co	Arlington, N. J.
Lukens Iron & Steel Co	Coatesville, Pa.
Manhattan Rubber Manufacturing Co	Passaic, N. J.
Maryland Belting & Packing Co	Baltimore, Md.
McCaffrey File Co	Philadelphia, Pa.
McCambridge-Cooper Co	Philadelphia, Pa.
McCullough Iron Co	Wilmington, Del.
McNab & Harlin Co	Paterson, N. J.
Midvale Steel Co	Philadelphia, Pa.
Mott, J. L., Iron Works	Trenton, N. J.
Nicetown Plate Washer Co	Philadelphia, Pa.
Niles-Bement-Pond Co	Philadelphia, Pa.
Ostrander Fire Brick Co	Ostrander, N. J.
Pennsylvania Forge Co	Philadelphia, Pa.
Pennsylvania Steel Co	Steelton, Pa.
Penn Metal Ceiling Co	Philadelphia, Pa.
Penn Steel Casting & Machine Co	Chester, Pa.
Phoenix Lock Works	Newark, N. J.
Phosphor Bronze Smelting Co	Philadelphia, Pa.
Philadelphia Gear Works	Philadelphia, Pa.
Popham, R. M., & Co	Philadelphia, Pa.
Power, L., Co	Philadelphia, Pa.
Railway Steel Spring Co	Philadelphia, Pa.
Reading Steel Casting Co	Reading, Pa.
Rennous, Kleinle & Co	Baltimore, Md.
Restein, Clement Co	Philadelphia, Pa.
Richardson, Edro Brass Co	Baltimore, Md.
Riverside Metal Co	Riverside, N. J.
Roebling, John A., Sons Co	Trenton, N. J.
Sands, A. B., & Co	Bloomfield, N. J.

Schoen-Jackson Co	Media, Pa.
Standard Roller Bearing Co	Philadelphia, Pa.
Taulane, Geo., Sons	Philadelphia, Pa.
Tompkins, F. L., Co	Philadelphia, Pa.
Trent File Co	Trenton, N. J.
United Lead Co	Perth Amboy, N. J.
Voorhees Rubber Manufacturing Co	Jersey City, N. J.
Weimer Chain Co	Lebanon, Pa.
White Hill Chain Works	White Hill, N. J.
Williamson Bros. Co	Philadelphia, Pa.
Williamsport Machine Co	Williamsport, Pa.
Wood, Alan Iron & Steel Co	Conshohocken, Pa.
Wood, Alan Iron & Steel Co	Ivy Rock, Pa.
Wood, J., & Bros	Conshohocken, Pa.
Woodhouse Chain Co	Trenton, N. J.
Worth Bros. Co	Coatesville, Pa.

WESTERN DISTRICT.

Acme Machinery Co	Cleveland, Ohio.
American Rolling Mill Co	Middletown, Ohio.
American Sheet & Tinplate Co	Bridgeport, Ohio.
American Sheet & Tinplate Co	New Philadelphia, Ohio.
American Sheet & Tinplate Co	Canal Dover, Ohio.
American Sheet & Tinplate Co	Vandergrift, Pa.
American Steel & Wire Co	Cleveland, Ohio.
Armstrong Cork Co	Pittsburgh, Pa.
Browning, V. R., & Co	Cleveland, Ohio.
Brier Hill Steel Co	Youngstown, Ohio.
Cambria Steel Co	Johnstown, Pa.
Carbon Steel Co	Pittsburgh, Pa.
Carnegie Steel Co. (Clairton Works)	Clairton, Pa.
Carnegie Steel Co. (Clark Mills)	Pittsburgh, Pa.
Carnegie Steel Co. (Duquesne Works)	Duquesne, Pa.
Carnegie Steel Co. (Homestead Works)	Homestead, Pa.
Carnegie Steel Co. (Lower Union Mills)	Pittsburgh, Pa.
Carnegie Steel Co. (Upper Union Mills)	Pittsburg, Pa.
Carnegie Steel Co. (Valley Mills)	Youngstown, Ohio.
Carter Iron Co	Hays, Pa.
Champion Rivet Co	Cleveland, Ohio.
Columbia Steel & Shafting Co	Braddock, Pa.
Columbia Steel & Shafting Co	East Carnegie, Pa.
Crucible Steel Co. of America	Pittsburgh, Pa.
Dahlstrom Metallic Door Co	Jamestown, N. Y.
Defiance Machine Works	Defiance, Ohio.
Deforest Sheet & Tinplate Co	Niles, Ohio.
Diamond Rubber Co	Akron, Ohio.
Farnan Brass Works	Cleveland, Ohio.
Fawcus Machine Co	Pittsburgh, Pa.
Fay, J. A., & Eagan Co	Cincinnati, Ohio.
Fisher & Wilson Co	Cleveland, Ohio.
Garland Nut & Rivet Co	West Pittsburgh, Pa.
Geiger & Bush	Bucyrus, Ohio.
Goodrich, B. F., Co	Akron, Ohio.
Hamilton Lumber Co	Leetsdale, Pa.
Hussey, C. G., & Co	Pittsburgh, Pa.
Ideal Electric & Manufacturing Co	Cleveland, Ohio
Illinois Smelting & Refining Co	Sandoval, Ill.
Illinois Zinc Co	Peru, Ill.
Jones & Laughlin Steel Co	Pittsburgh, Pa.
Lanz, M. & Sons	Pittsburgh, Pa.
Le Blond Machine Tool Co., R. K	Cincinnati, Ohio.
Lunkenheimer Co	Cincinnati, Ohio.
Matthiessen & Hegeler Zinc Co	La Salle, Ill.
McCance Bros	Pittsburgh, Pa.
Mesta Machine Co	West Homestead, Pa.
National Elec. Welder Co	Warren, Ohio.
National Tube Co	Ellwood City, Pa.
National Tube Co	Christy Park, Pa.
National Tube Co	McKeesport, Pa.

National Tube Co	Versailles, Pa.
Ohio Seamless Tube Co	Shelby, Ohio.
Pittsburgh Forge & Iron Co	Pittsburgh, Pa.
Pittsburgh Galvanizing Co	Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co	Pittsburgh, Pa.
Pittsburgh Steel Products Co	Monessen, Pa.
Pollak Steel Co	Cincinnati, Ohio.
Portsmouth Steel Co	Portsmouth, Ohio.
Reliance Electrical & Engr. Co	Cleveland, Ohio.
Riter-Conley Manufacturing Co	Leetsdale, Pa.
Severance, S., Manufacturing Co	Glassport, Pa.
Sligo Iron & Steel Co	Connellsville, Pa.
Standard Chain Co	Braddock, Pa.
Standard Gauge Steel Co	Beaver Falls, Pa.
Stark Rolling Mill Co	Canton, Ohio.
Thomas Steel Co	Niles, Ohio.
Triumph Electric Co	Cleveland, Ohio.
Wheeling Corrugated Co	Wheeling, W. Va.
Whiting Foundry Equipment Co	Harvey, Ill.
Youngstown Iron & Steel Co	Youngstown, Ohio.
Youngstown Sheet & Tube Co	Youngstown, Ohio.
Zug Iron & Steel Co	Pittsburgh, Pa.

The following is a list of the officers and inspectors engaged upon the inspection of material under this bureau:

EASTERN DISTRICT.

[Headquarters, post-office building, Philadelphia, Pa.]

Asst. Naval Constructor E. G. Kintner, United States Navy, inspector in charge until June 15, 1912, and assistant until June 24, 1912.

Naval Constructor John D. Beuret, United States Navy, inspector in charge from June 15, 1912.

Asst. inspectors: J. B. Fry, J. E. Rettig, J. T. Callaghan, jr., R. P. Hodgson, I. F. De Lany, W. W. E. Ash.

Asst. Inspector C. L. Brinton, served in the eastern district from October, 1911, to May, 1912.

Clerk, Thomas F. Maccabe.

WESTERN DISTRICT.

[Headquarters, Homestead Steel Works, Munhall, Pa.]

Naval Constructor G. A. Bisset, United States Navy, inspector in charge to January 26, 1912, and assistant until February 15, 1912.

Naval Constructor William J. Baxter, United States Navy, inspector in charge from January 26, 1912, to June 10, 1912.

Naval Constructor Frank D. Hall, United States Navy, inspector in charge from July 15, 1912.

Asst. inspectors: W. H. Caldwell, W. B. Canfield, W. S. Davis, H. E. Hahn, A. P. Harclerode, J. A. O'Brien, W. B. Petch, W. H. Wills, J. C. Wickersham.

Asst. Inspector C. L. Brinton, transferred to eastern district in October, 1911, and returned to western district in May, 1912.

Stenographer and typewriter (clerk), C. J. Kortz.

INSPECTION OF ELECTRICAL MATERIAL.

The inspection of electrical material under the bureau at the works of the General Electric Co., at Schenectady, N. Y., and Lynn, Mass., was in charge of Naval Constructor L. S. Adams, United States Navy, until January 29, 1912, and Assistant Naval Constructor Waldo P. Druley, United States Navy, from January 29, 1912.

LIST OF VESSELS OF THE UNITED STATES NAVY.

The list of vessels heretofore published as a part of this report has been omitted. The information is now published by the department in a special pamphlet, "Ships' Data, United States Naval Vessels."

ADDITIONS TO THE NAVY SINCE JUNE 30, 1911.

The additions to the effective force of the Navy by the completion of vessels building under contract and at navy yards are as follows: Battleships *Arkansas, Florida, Utah, Wyoming;* torpedo-boat destroyers *Mayrant, Walke, Patterson, Jouett, Fanning, Jenkins, Beale, Jarvis;* submarine torpedo boats *E-1, E-2, F-1, F-2, F-3, G-1;* colliers *Orion, Neptune;* tugs *Ontario, Sonoma.*

Statement of data relative to trials and acceptances of vessels which have been preliminarily accepted and those finally accepted since the last annual report.

Name.	Type.	Date of trial.	Speed required by contract.	Speed obtained on trial.	Date of preliminary acceptance.	Date of final acceptance.	By whom built.
			Knots.	*Knots.*			
Arkansas	Battleship	1912. June 4	20.5	21.05	1912. Sept. 14		New York Shipbuilding Co.
Delaware	do	1909. Oct. 23	21	21.56	1910. Feb. 15	1911. Oct. 27	Newport News Co.
Florida	do	1912. Mar. 25	20.75	22.08	[1] 1911. Sept. 15		Government.
Nebraska	do	1906. July 17	19	19.06	1907. May 31		Moran Bros. Co.
North Dakota	do	1909. Nov. 5	21	21.01	1910. Apr. 11	Nov. 11	Fore River Co.
Utah	do	1911. July 2	20.75	21.04	1911. Aug. 30		New York Shipbuilding Co.
Wyoming	do	1912. July 19 to 22	20.5	21.22	1912. Sept. 23		Wm. Cramp & Sons.
Ammen	Torpedo-boat destroyer.	1911. Apr. 7	29.5	30.48	1911. May 20	1912. July 29	New York Shipbuilding Co.
Beale	do	1912. June 25	29.5	29.65	1912. Aug. 29		Wm. Cramp & Sons.
Burrows	do	1911. Jan. 8	29.5	30.67	1911. Feb. 17	Aug. 8	New York Shipbuilding Co.
Drayton	do	1910. Oct. 14	29.5	30.83	1910. Oct. 29		Bath Iron Works.
Fanning	do	1912. May 28	29.5	29.99	1912. June 20		Newport News Shipbuilding Co.
Jenkins	do	May 21	29.5	31.27	June 14		Bath Iron Works.
Jouett	do	Apr. 30 to May 1	29.5	32.27	May 24		Do.
Mayrant	do	1910. May 17	30	30.22	1911. July 10	Aug. 14	Wm. Cramp & Sons.
McCall	do	Dec. 9	29.5	30.66	Jan. 18	July 29	New York Shipbuilding Co.
Monaghan	do	1911. May 27	29.5	30.45	June 20	Mar. 16	Newport News Co.
Paulding	do	1910. Sept. 2	29.5	32.80	1910. Sept. 27		Bath Iron Works.
Patterson	do	1911. Aug. 11	29.5	29.68	1911. Oct. 7	June 7	Wm. Cramp & Sons.
Perkins	do	1910. Sept. 30	29.5	29.76	1910. Nov. 15		Fore River Co.
Roe	do	July 16	29.5	29.60	Sept. 15	1912. June 19	Newport News Co.
Smith	do	1909. Sept. 23	28	28.35	1909. Nov. 24	1911. Nov. 18	Wm. Cramp & Sons.
Sterett	do	1910. Nov. 6	29.5	30.37	1910. Dec. 12		Fore River Co.
Terry	do	Sept. 24	29.5	30.24	Oct. 12		Newport News Co.

[1] Date of commission.

Statement of data relative to trials and acceptances of vessels—Continued.

Name.	Type.	Date of trial.	Speed required by contract.	Speed obtained on trial.	Date of preliminary acceptance.	Date of final acceptance.	By whom built.
Trippe	Torpedo-boat destroyer.	1911. Feb. 21	*Knots.* 29.5	*Knots.* 30.89	1911. Mar. 21	1912.	Bath Iron Works.
Walke	do	Apr. 24	29.5	29.78	July 18	....	Fore River Co.
Warrington	do	Jan. 12	30	30.12	Mar. 17	Jan. 20	Wm. Cramp & Sons.
Jarvis	do	....	29.5	....	1912. Oct. 21	....	New York Shipbuilding Co.
D-3	Submarine	1910. June 9 to 18.	....	....	1910. Sept. 1	Feb. 15	Fore River Co.
E-1	do	1911. Nov. 15 to 22. Dec. 12 to 15.	....	....	1912. Feb. 14	....	Do.
E-2	do	Nov. 14 to 23. Dec. 11 to 15.	....	....	Feb. 14	....	Do.
F-1	do	1912. Apr. 5 to May 3.	....	....	June 19	....	Union Iron Works.
-2	do	May 6 to 23.	....	....	June 25	....	Do.
F-3	do	June 17 to July 10	....	....	Aug. 5	....	Seattle Con. & D. D. Co.
G.1	do	1912. Sept. 3	....	....	Oct. 18	....	Newport News Co.
Cyclops	Collier	1910. Oct. 26 to 28.	14	14.61	1910. Nov. 8	1912. Mar. 9	Wm. Cramp & Sons.
Neptune	do	1911. July 27 to 29.	14	12.93	....	....	Maryland Steel Co.
Orion	do	1912. July 9	14	....	1912. July 24	....	Do.
Ontario	Tug	Aug. 12 to 17.	14	13.28	Sept. 3	....	New York Shipbuilding Co.
Sonoma	do	Aug. 12 to 17.	14	13.06	Sept. 5	....	Do.

Vessels dropped from the Navy since June 30, 1911.

Name.	Type.	Status.	Stricken from the Navy Register—Disposition.	Appraised value.
San Marcos	Second-class battleship.	Regular Navy.	Oct. 11, 1911[1]	....
Hist	Converted yacht	do	July 27, 1911	[2] $2,421
Alliance	Wooden sailing vessel.	do	Aug. 9, 1911	[2] 2,300
Pensacola	Receiving ship	do	Dec. 23, 1911	[2] 12,025
Locust	Tug	do	Jan. 6, 1912	[2] 3,184
Atlanta	Cruiser	do	Apr. 24, 1912	[2] 21,200
Yosemite	....	do	Feb. 14, 1912	[2] 11,655
Erricsson	Torpedo boat	do	Apr. 6, 1912	1,200
Cushing	do	do	do	1,500
McKee	do	do	do	700
Yankee	Cruiser	do	Apr. 17, 1912	[2] 2,010
Isla De Cuba	Gunboat	do	May 17, 1912	....
Alvarado	do	do	May 20, 1912	[2] 851
Talbot	Torpedo boat	do	May 1, 1912	....
Jamestown	Wooden sailing vessel.	do	Sept. 4, 1912	2,500
Rowan	Torpedo boat	do	Oct. 29, 1912	....
Porter	Torpedo boat	do	Nov. 7, 1912	....

[1] Hulk to be retained for Government use.

[2] Selling price.

Vessels building for the increase of the Navy are listed in the following tables, which include all those authorized by law, with the exception of 1 battleship, 1 destroyer tender, 1 submarine tender, 2 fleet oilers, 6 torpedo-boat destroyers, and 8 submarine boats appropriated for by the last Congress.

Vessels building under contract.

Name.	By whom building.	Estimate of—		Contract time.	Expiration of contract time.
		Degree of completion Nov. 1, 1912.	Probable date of completion.		
BATTLESHIPS.		*Per cent.*		*Months.*	
Texas	Newport News Shipbuilding Co.	79.2	Sept. 5, 1913	36	Dec. 17, 1913
Nevada	Fore River Shipbuilding Co.	10.1	Apr. 22, 1915	36	Jan. 22, 1915
Oklahoma	New York Shipbuilding Co.	9.3	do	36	Do.
GUNBOAT.					
Sacramento	Wm. Cramp & Sons	0.0		21	June 9, 1914
TORPEDO-BOAT DESTROYERS.					
Henley	Fore River Shipbuilding Co.	96.9	Oct. 4, 1912	24	Nov. 28, 1912
Cassin	Bath Iron Works	60.4	June 21, 1913	24	Sept. 0, 1913
Cummings	do	52.7	Aug. 24, 1913	24	Do.
Downes	New York Shipbuilding Co	25.0	Dec. 29, 1913	24	Sept. 8, 1913
Duncan	Fore River Shipbuilding Co.	44.4	Oct. 3, 1913	24	Sept. 6, 1913
Aylwin	Wm. Cramp & Sons	61.3	July 16, 1913	22½	July 22, 1913
Parker	do	56.6	Aug. 22, 1913	23	Aug. 7, 1913
Benham	do	56.0	Sept. 13, 1913	23½	Aug. 22, 1913
Balch	do	58.6	Oct. 1, 1913	24	Sept. 7, 1913
SUBMARINE TORPEDO BOATS.					
F-4	The Moran Co.	94.6	Nov. 17, 1912	29	Aug. 5, 1911
G-4	Wm. Cramp & Sons	88.3	May 9, 1913	30	Oct. 24, 1911
G-2	Newport News Shipbuilding Co.	86.0	July 28, 1913	28	Aug. 21, 1911
H-1	Union Iron Works	84.5	Feb. 19, 1913	29	Jan. 10, 1913
H-2	do	84.5	Feb. 23, 1913	29	Do.
H-3	The Moran Co	82.1	Feb. 28, 1913	30	Feb. 10, 1913
G-3	Lake Torpedo Boat Co	60.0	May 28, 1913	20	Sept. 19, 1912
K-1	Fore River Shipbuilding Co.	54.2	Sept. 15, 1913	25	June 30, 1913
K-2	do	53.5	Sept. 21, 1913	25	Do.
K-3	Union Iron Works	59.0	July 30, 1913	26	July 30, 1913
K-4	The Moran Co.	54.5	Dec. 3, 1913	27	Aug. 30, 1913
K-5	Fore River Shipbuilding Co.	38.6	Dec. 27, 1913	24	Oct. 27, 1913
K-6	do	38.1	Feb. 3, 1914	25	Nov. 27, 1913
K-7	Union Iron Works	42.0	Dec. 27, 1913	26	Dec. 27, 1913
K-8	do	41.5	Jan. 27, 1914	27	Jan. 27, 1914
COLLIERS.					
Proteus	Newport News Shipbuilding Co.	72.0	July 23, 1913	22	June 29, 1913
Nereus	do	62.5	Aug. 20, 1913	22	Do.
Jason	Maryland Steel Co	66.7	July 10, 1913	24	Aug. 22, 1913
SUBMARINE TENDER.					
Niagara	New London Ship & Engine Co.	0.0	June 19, 1914	24	June 19, 1914

Vessels building at navy yards.

Name.	Where building.	Estimate of— Degree of completion Nov. 1, 1912.	Estimate of— Probable date of completion.	Constructional period.	Expiration of constructional period
BATTLESHIPS.		*Per cent.*		*Months.*	
New York	Navy yard, New York, N. Y	62.5	May 1, 1914	36	May 1, 1914
GUNBOATS.					
Monocacy	Navy yard, Mare Island, Cal	0.7			
Palos	do	0.7			
COLLIER.					
Jupiter	Navy yard, Mare Island, Cal	85.6	May 3, 1913		May 3, 1913

VESSELS LAUNCHED SINCE JUNE 30, 1911.

The following is a list of vessels launched since June 30, 1911, together with the date of launching:

Name.	Launched.	Name.	Launched.
F-1	Sept. 6, 1911	Jouett	Apr. 15, 1912
Fanning	Jan. 11, 1912	Sonoma	May 11, 1912
G-2	Jan. 10, 1912	Texas	May 18, 1912
F-3	Jan. 6, 1912	Beale	Apr. 30, 1912
F-4	do	Jenkins	Apr. 29, 1912
F-2	Mar. 19, 1912	G-4	Aug. 15, 1912
Orion	Mar. 23, 1912	Jupiter	Aug. 24, 1912
Ontario	Apr. 11, 1912	Proteus	Sept. 14, 1912
Jarvis	Apr. 3, 1912	New York	Oct. 30, 1912
Henley	Apr. 3, 1912		

NEW VESSELS AUTHORIZED.

BATTLESHIPS.

The plans and specifications for first-class battleships No. 36, *Nevada*, and No. 37, *Oklahoma*, authorized by act of Congress approved March 4, 1911, were completed and circular signed by the Secretary of the Navy, October 18, 1911, and issued to the bidders upon request after November 1, 1911.

The general dimensions and features of each vessel are as follows:

Length on designer's water line	575 feet.
Breadth, extreme, at designer's water line	95 feet 2⅝ inches.
Mean trial displacement	27,500 tons.
Mean draft to bottom of keel at trial displacement (about)	28 feet 6 inches.
Total fuel-oil storage	2,000 tons.
Fuel-oil carried on trial	1,333 tons.
Feed water carried on trial	165 tons.
Speed on trial, not less than	20½ knots.

Armament:
- Main battery—
  - Ten 14-inch 45-caliber breech-loading rifles.
  - Four submerged torpedo tubes.
- Secondary battery—
  - Twenty-one 5-inch rapid-fire guns, 51 caliber.
  - Four 3-pounder saluting guns.
  - Two 1-pounder semiautomatic guns for boats.
  - Two 3-inch fieldpieces.
  - Two machine guns, .30 caliber.

Bids for the construction of battleships No. 36, *Nevada*, and No. 37, *Oklahoma*, were opened at the department January 4, 1912.

Proposals received for the construction of battleships No. 36, "Nevada," and No. 37, "Oklahoma."

Class 1: Hull and equipment and reciprocating machinery, department's plans. Class 2: Hull and equipment, department's plans; machinery, bidder's design.]

Bidder.	Class 1.	Class 2.	Magazine refrigeration.	Time.	Speed.	Type of propelling machinery.
				Months.	*Knots.*	
Fore River Shipbuilding Co.[1]	$5,960,000	....	Yes.....	36	20.5	Twin screw, vertical inverted, 4-cylinder, triple engines.
Do...............	5,940,000	....	No......	36	20.5	Do.
Do...............	....	$5,935,000	Yes.....	36	20.5	Twin screw, Curtis turbines.
Do...............	....	5,895,000	No......	36	20.5	Do.
Do...............	....	5,955,000	Yes.....	36	20.5	Twin screw, Curtis turbines, with reciprocating engine on each shaft.
Do...............	....	5,915,000	No......	36	20.5	Do.
New York Shipbuilding Co.[2]	....	5,926,000	No......	36	20.5	Twin screw, vertical inverted, 4-cylinder, triple engines.
Do...............	....	5,965,000	Yes.....	36	20.5	Do.
Newport News Ship & Dry Dock Co. (2 vessels).	6,450.000 (each).	....	Yes.....	36	20.5	Twin screw, vertical inverted, 4-cylinder, triple engines.
Do...............	6,350,000 (each).	....	Yes.....	36	20.5	Do.

[1] Nickel steel instead of S. T. S. for decks, flats, and bulkheads below splinter deck and bulkheads between splinter and protected decks. Entire splinter deck between frames 20 and 122 lower course 50-pound plating on middle protected deck between frames 20 and 122.

[2] Nickel steel substituted for 60 per cent of S. T. S. called for by department's design.

Contract for battleship No. 36, *Nevada*, was signed with the Fore River Shipbuilding Co., Quincy, Mass., on January 22, 1912, at a price of $5,895,000; to have the bidder's design of Curtis turbines installed, and to be completed within 36 months.

Contract for battleship No. 37, *Oklahoma*, was signed with the New York Shipbuilding Co., Camden, N. J., on Janury 22, 1912, at a price of $5,926,000; to have reciprocating engines installed, and to be completed within 36 months.

GUNBOAT NO. 19, "SACRAMENTO."

The plans and specifications for gunboat No. 19, *Sacramento*, authorized by act of Congress approved March 4, 1911, were completed and circular signed by the Secretary of the Navy November 27, 1911, and issued to bidders upon request thereafter.

Bids for the construction of gunboat No. 19, *Sacramento*, were opened at the department February 1, 1912.

The proposals received being in excess of the appropriation, a new circular was signed by the Secretary of the Navy April 18, 1912, and bids were opened at the department July 1, 1912.

The general characteristics of the vessel under contract are as follows:

Length between perpendiculars	210 feet.
Length over all	226 feet 2 inches.
Breadth molded	40 feet 9 inches.
Breadth extreme to outside of plating	40 feet 10½ inches
Depth at side, least, molded	25 feet 9 inches.
Mean trial displacement	1,425 tons.
Mean draft to bottom of keel at mean trial displacement, about	11 feet 5½ inches.
Speed on trial	12 knots.

Battery:
  Three 4-inch rapid-fire guns.
  Two 1-pounder guns (mounted on ship and for use in boats).
  Two 30-caliber machine guns.
  Two 3-inch field pieces.
  Two 3-pounder guns for saluting.

Proposals received for the construction of gunboat No. 19, "Sacramento."

[Class 1: Hull and machinery, department's plans. Class 2: Hull and equipment, department's plans; machinery, bidder's plans. Class 3: Hull, machinery, and equipment, bidder's design.]

Bidders.	Class 1.	Class 2.	Class 3.	Months to complete.	Speed.	Type of propelling machinery.
					Knots.	
Wm. Cramp & Sons' Ship & Engine Building Co., Philadelphia, Pa.[1]	$716,500	....	....	21	16	Reciprocating.
	....	[2]$485,600	....	21	14	Do.
	....	....	$723,000	21	16	Do.
Wm. Cramp & Sons' Ship & Engine Building Co., Philadelphia, Pa.[3]	499,500	....	....	21	12	Do.
	....	492,500	....	21	12½	Do.

[1] Bids received Feb. 1, 1912. [2] Alternate bid. [3] Bids received July 1, 1912.

Contract for gunboat No. 19, *Sacramento*, was signed with the Wm. Cramp & Sons' Ship & Engine Building Co., Philadelphia, Pa., on September 9, 1912, at a price of $492,500; to have the bidder's design of reciprocating engines installed and to be completed within 21 months.

RIVER GUNBOAT "MONOCACY."

The plans and specifications for light-draft river gunboat *Monocacy*, authorized by act of Congress approved March 4, 1911, were completed and circular signed by the Acting Secretary of the Navy April 3, 1912, and issued to bidders upon request thereafter.

The general characteristics of the vessel are as follows:

Length between perpendiculars	160 feet.
Breadth, molded, extreme	24 feet 6 inches.
Depth at side, molded	5 feet 9 inches.
Mean trial displacement, about	190 tons.
Mean draft to bottom of keel at mean trial displacement	2 feet 5 inches.
Speed (in deep water, 6 fathoms or more)	13¼ knots.

Battery:
  Two 6-pounders.
  Two 3-inch field pieces, with carriages and limbers.
  Six .30-caliber machine rifles.

Bids for the construction of river gunboat *Monocacy* were opened at the department June 10, 1912.

Proposals received for the construction of river gunboat "Monocacy."

[Class 1: Hull and machinery, department's plans. Class 2: Hull and equipment, department's plans machinery, bidder's plans.]

Bidders.	Class 1.	Class 2.	Months to complete.	Speed.	Type of propelling machinery.
				Knots.	
Seattle Construction & Dry Dock Co., Seattle, Wash.	[1] $212,600 [2] 214,500 [3] 290,000	....	18	13½	Reciprocating.

[1] F. o. b. cars works of contractor.
[2] F. o. b. trans-Pacific steamer San Francisco.
[3] Shanghai, China, reerected.

The department has directed that river gunboat *Monocacy* be built at the navy yard, Mare Island, Cal.

GUNBOAT NO. 16, "PALOS."

The appropriation made by the act of Congress approved May 4, 1898, for one gunboat to be built on the Great Lakes is made available by the act of Congress, August 22, 1912, for the construction of a river gunboat.

This vessel will be a duplicate of river gunboat *Monocacy* and will be built at the navy yard, Mare Island.

SUBMARINE TORPEDO BOATS.

Circular defining the chief characteristics of submarine torpedo boats *Nos. 36* to *39*, inclusive, authorized by act of Congress approved March 4, 1911, was signed by the Acting Secretary of the Navy June 21, 1911, and issued to bidders upon request thereafter.

Bids for the construction of these vessels were opened at the department September 1, 1911, and contracts were awarded as follows:

Contracts for submarines *Nos. 36* and *37* (K–5 and K–6) were signed with the Electric Boat Co., of New York, N. Y., on October 27, 1911, at a price of $478,000 each, to be completed within 24 months and 25 months, respectively.

Contracts for submarines *Nos. 38* and *39* (K–7 and K–8) were signed with the Electric Boat Co., of New York, N. Y., on October 27, 1911, at a price of $512,000 each, to be completed in 26 months and 27 months, respectively.

SUBMARINE TENDER NO. 1, "NIAGARA."

The plans and specifications for submarine tender No. 1, *Niagara*, authorized by act of Congress approved March 4, 1911, were completed and circular signed by the Assistant Secretary of the Navy December 18, 1911, and issued to bidders upon request thereafter.

Bids for the construction of submarine tender No. 1, *Niagara*, were opened at the department April 30, 1912.

Proposal received for the construction of submarine tender No. 1, "Niagara."

ass 1, hull and equipment, department's plans, machinery, bidder's plans; Class 2, hull, machinery, and equipment, bidder's plans.]

Bidder.	Class 1.	Class 2.	Months to complete.	Speed.	Type of propelling machinery.
				Knots.	
New London Ship & Engine Co.	....	$494,000	24	12½	Internal combustion, 2 shafts (Diesel).

Contract for submarine tender No. 1, *Niagara*, was signed with the New London Ship & Engine Co., Groton, Conn., on June 19, 1912, at a modified price of $492,930.

The general dimensions are as follows:

Length over all	226 feet 6 inches.
Depth molded to upper deck at center line at one-half length	24 feet 3 inches.
Draft, trial load	12 feet 11½ inches.
Length on load water line	216 feet.
Beam, molded	35 feet.
Mean trial displacement	1,408 tons.

BATTLESHIPS, SUBMARINE TENDER, DESTROYER TENDER, FLEET OILERS, TORPEDO-BOAT DESTROYERS, AND SUBMARINES.

The plans and specifications for battleship No. 38, *Pennsylvania*, fleet oilers *Nos. 1* and *2*, destroyer tender *No. 1*, and submarine tender *No. 2*, and circular for submarines *Nos. 40* to *47*, authorized by act of Congress approved August 22, 1912, are in course of preparation.

The plans and specifications for torpedo-boat destroyers *Nos. 51* to *56* have been completed and issued to bidders. The circular for the construction of these vessels was signed by the Acting Secretary of the Navy August 24, 1912, and issued to bidders upon request thereafter. Bids will be opened November 18, 1912.

Progress of work on vessels under construction.

[Taken from reports of superintending constructors.]

Name of vessel.	Name of superintending constructor.	Contract signed.	Expiration of contract period.	Contract time extended to—	Lines faired.	First hull material ordered.	Keel laid.	First frame erected.	First large casting received.
Florida	W. J. Baxter and R. Stocker.	Nov. 24, 1908	July 24, 1911		Nov. 27, 1908	Nov. 2, 1908	Mar. 9, 1909	Mar. 9, 1909	Mar. 6, 1909
Nevada	L. Bankson	Jan. 22, 1912	Jan. 22, 1915						May 23, 1912
Arkansas	J. G. Tawresey	Sept. 25, 1909	May 25, 1912		Dec. 13, 1909	Sept. 22, 1909	Jan. 25, 1910	Jan. 28, 1910	May 9, 1910
Wyoming	E. Snow	Oct. 14, 1909	June 14, 1912		Oct. 30, 1909	Sept. 14, 1909	Feb. 9, 1910	Feb. 15, 1910	Apr. 4, 1910
New York	W. J. Baxter and R. Stocker.	May 1, 1911	May 1, 1914		May 15, 1911	May 5, 1911	Sept. 11, 1911	Oct. 1, 1911	Oct. 2, 1911
Texas	T. G. Roberts	Dec. 17, 1910	Dec. 17, 1913		Jan. 16, 1911	Jan. 4, 1911	Apr. 17, 1911	Apr. 21, 1911	July 1, 1911
Oklahoma	J. G. Tawresey	Jan. 22, 1912	Jan. 22, 1915			Feb. 10, 1912	Oct. 26, 1912		
Monocacy	T. F. Ruhm								
Palos	do								
Sacramento	E. Snow	Sept. 9, 1912	June 9, 1914						
F-1	A. H. Van Keuren	Mar. 5, 1909	June 5, 1911		June 2, 1909	Apr. 26, 1909	Aug. 23, 1909	Aug. 31, 1909	Mar. 14, 1910
F-2	do	do	do		do	do	do	do	Feb. 23, 1910
F-3	G. C. Westervelt	do	Aug. 5, 1911		June 30, 1909	Apr. 15, 1909	Aug. 21, 1909	Oct. 20, 1909	Apr. 20, 1910
F-4	do	do	do		do	do	do	do	Do.
	L. Bankson	June 3, 1909	Aug. 3, 1911		Oct. 14, 1909	June 29, 1909	Dec. 22, 1909	Jan. 10, 1910	Apr. 22, 1910
	do	do	do		do	do	do	Jan. 13, 1910	Do.
	E. Snow	Apr. 24, 1909	Oct. 24, 1911	Nov. 1, 1912	July 7, 1909	June 13, 1909	July 9, 1910	Aug. 22, 1910	Dec. 14, 1909
	S. M. Henry	Apr. 21, 1909	Aug. 21, 1911		Aug. 31, 1909	Apr. 22, 1909	Oct. 20, 1909	Oct. 27, 1909	Oct. 28, 1909
	do	[1] Feb. 3, 1908	May 3, 1910		Dec. 24, 1908	June 23, 1908	Feb. 2, 1909	Mar. 1, 1909	May 4, 1909
	A. H. Van Keuren	Aug. 10, 1910	Jan. 10, 1913		Dec. 9, 1910	Dec. 7, 1910	Mar. 22, 1911	Apr. 1, 1911	Apr. 19, 1911
	do	do	do		do	do	Mar. 23, 1911	do	Do.
	G. C. Westervelt	do	Feb. 10, 1913		Nov. 17, 1910	Nov. 1, 1910	Apr. 3, 1911	Apr. 12, 1911	Apr. 16, 1911
	S. M. Henry	Jan. 19, 1911	Sept. 19, 1912		Feb. 22, 1911	Sept. 12, 1910	Mar. 30, 1911	Apr. 13, 1911	Feb. 7, 1911
	L. Bankson	May 31, 1911	June 30, 1913		Dec. 16, 1911	Aug. 4, 1911	Feb. 20, 1912	Feb. 28, 1912	May 11, 1912
	do	do	do		do	do	do	Feb. 29, 1912	Do.
	H. Van Keuren	do	July 31, 1913		Nov. 17, 1911	Aug. 28, 1911	Jan. 15, 1912	Jan. 22, 1912	May 11, 1912
	Westervelt	do	Aug. 31, 1913		Nov. 9, 1911	Aug. 8, 1911	Jan. 27, 1912	Mar. 15, 1912	June 15, 1912
	on	Oct. 27, 1911	Oct. 27, 1913		Dec. 16, 1911	Nov. 29, 1911	June 10, 1912	June 27, 1912	
	do	do	Nov. 27, 1913		do	do	June 19, 1912		
	Van Keuren	do	Dec. 27, 1913			Dec. 20, 1911	May 10, 1912	June 4, 1912	
		do	Jan. 27, 1914			do	do	June 1, 1912	
	on	June 19, 1912	June 19, 1914						
	Adams	Sept. 6, 1911	Sept. 6, 1913		Mar. 2, 1912	Sept. 12, 1911	May 1, 1912	May 2, 1912	May 31, 1912
	do	do	do		do	do	May 21, 1912	May 27, 1912	Do.
	Tawresey	Sept. 8, 1911	Sept. 8, 1913		Sept. 30, 1911	Oct. 4, 1911	June 27, 1912		
	on	Sept. 6, 1911	Sept. 6, 1913		Nov. 21, 1911	Oct. 28, 1911	June 17, 1912	June 24, 1912	May 25, 1912
		Sept. 7, 1911	July 22, 1913		Oct. 16, 1911	Oct. 5, 1911	Mar. 7, 1912	Mar. 20, 1912	Jan. 22, 1912
		do	Aug. 7, 1913		do	do	Mar. 11, 1912	Mar. 22, 1912	Feb. 12, 1912
		do	Aug. 22, 1913		do	do	Mar. 14, 1912	Mar. 26, 1912	Do.

Balch	do	do	Sept. 7, 1913		do	do	May 7, 1912	May 22, 1912	Mar. 30, 1912
Mayrant	E. Snow	Oct. 1, 1908	Oct. 1, 1910		Oct. 8, 1911	Oct. 7, 1908	Apr. 22, 1909	May 4, 1909	Apr. 2, 1909
Patterson	do	June 14, 1909	June 14, 1911		Aug. 20, 1909	June 30, 1909	Apr. 27, 1910	Apr. 28, 1910	Apr. 23, 1910
Fanning	T. G. Roberts	Dec. 6, 1910	Dec. 6, 1912		Dec. 2, 1910	Dec. 9, 1910	Apr. 20, 1911	June 6, 1911	Apr. 6, 1911
Jarvis	J. G. Tawresey	Dec. 3, 1910	Dec. 3, 1912		Jan. 12, 1911	Dec. 12, 1910	July 1, 1911	July 7, 1911	June 13, 1911
Henley	L. Bankson	Nov. 28, 1910	Nov. 28, 1912		Mar. 18, 1911	Dec. 15, 1910	July 17, 1911	Sept. 25, 1911	June 20, 1911
Beale	E. Snow	Dec. 1, 1910	Dec. 1, 1912			Dec. 6, 1910	May 8, 1911	May 10, 1911	Mar. 13, 1911
Jouett	L. S. Adams	Nov. 30, 1910	Nov. 30, 1912		Nov. 30, 1911	Nov. 29, 1910	Mar. 7, 1911	Mar. 29, 1911	Apr. 11, 1911
Jenkins	do	do	do		do	do	Mar. 24, 1911	Apr. 12, 1911	Do.
Neptune	S. F. Smith	Sept. 23, 1909	May 23, 1911	June 23, 1911	Dec. 11, 1909	Oct. 28, 1909	Mar. 23, 1910	Apr. 11, 1910	May 3, 1910
Jupiter	T. F. Ruhm	July 3, 1911	May 3, 1913		May 1, 1911	Apr. 6, 1911	Oct. 18, 1911	Oct. 21, 1911	Sept. 13, 1911
Proteus	T. G. Roberts	Aug. 29, 1911	June 29, 1913		Aug. 5, 1911	Aug. 22, 1911	Oct. 31, 1911	Nov. 14, 1911	Jan. 31, 1912
Nereus	do	do	do		do	do	Dec. 4, 1911	Dec. 15, 1911	Feb. 7, 1912
Orion	W. G. Groesbeck and S. F. Smith.	Aug. 22, 1911	Aug. 22, 1913		July 31, 1911		Oct. 6, 1911	Oct. 20, 1911	Oct. 13, 1911
Jason	do	do	do		do		Mar. 26, 1912	Apr. 15, 1912	Oct. 21, 1911
Sonoma	J. G. Tawresey	July 28, 1911	Aug. 24, 1912		Aug. 15, 1911	Aug. 15, 1911	Nov. 23, 1911	Nov. 23, 1911	Dec. 12, 1911
Ontario	do	do	do		do	do	Nov. 7, 1911	Nov. 7, 1911	Do.

Name of vessel.	First large casting erected.	First armor plate fitted.	First compartment tested.	Vessel launched.	Dock trial.	Official trial.	Estimated degree of completion Nov. 1, 1912.	Vessel delivered to Government.	Date of first commission.
							Per cent.		
Florida	Apr. 17, 1909	Sept. 23, 1909	Aug. 25, 1909	May 12, 1910	Sept. 30 to Oct. 7, 1911.	Mar. 23, 1912			Sept. 15, 1911
Nevada							10.1		
Arkansas	June 9, 1910	June 21, 1910	May 18, 1910	Jan. 14, 1911	Feb. 20 to 22, 1912.	May 29 to June 10, 1912.		Aug. 29, 1912	Sept. 17, 1912
Wyoming	June 17, 1910	Sept. 27, 1910	Aug. 23, 1910	May 25, 1911				Sept. 23, 1912	Sept. 25, 1912
New York	Dec. 22, 1911	May 31, 1912	May 7, 1912	Oct. 30, 1912			62.5		
Texas	Aug. 5, 1911	Oct. 7, 1911	Sept. 14, 1911	May 18, 1912			79.2		
Oklahoma							9.3		
Monocacy							0.7		
Sacramento							0.0		
Palos							0.7		
F-1	Apr. 18, 1910		Apr. 4, 1910	Sept. 6, 1911	Dec. 14, 1911	Apr. 5 to June 4, 1912.		June 19, 1912	June 19, 1912
F-2	Apr. 4, 1910		Mar. 31, 1910	Mar. 19, 1912	Apr. 23, 1912	May 6 to June 5, 1912.		June 25, 1912	June 25, 1912
F-3	May 17, 1910		May 5, 1910	Jan. 6, 1912	May 15, 1912	June 15, 1912		Aug. 5, 1912	Aug. 5, 1912
F-4	do		do	do			94.6		
E-1	May 19, 1910		Apr. 15, 1910	May 27, 1911	Sept. 8, 1911	Nov. 15 to Dec. 22, 1911.		Feb. 14, 1912	Feb. 14, 1912
E-2	May 25, 1910		Apr. 18, 1910	June 15, 1911	Aug. 21, 1911	Nov. 16 to Dec. 15, 1911.		do	Do.

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[1] Date of agreement.

Progress of work on vessels under construction—Continued.

Name of vessel.	First large casting erected.	First armor plate fitted.	First compartment tested.	Vessel launched.	Dock trial.	Official trial.	Estimated degree of completion Nov. 1, 1912.	Vessel delivered to Government.	Date of first commission.
							Per cent.		
G-4	Oct. 12, 1910		May 4, 1911	Aug. 15, 1912			88.3		
G-2	Nov. 29, 1909		Aug. 12, 1910	Jan. 10, 1912	May 2, 1912		86.0		
G-1	May 11, 1909		Jan. 25, 1910	Feb. 8, 1911	May 3, 1911			Oct. 18, 1912	Oct. 28, 1912
H-1	Aug. 25, 1911		Feb. 29, 1912				84.5		
H-2	Sept. 19, 1911		Mar. 21, 1912				84.5		
H-3	July 15, 1911		Oct. 17, 1911				82.1		
G-3	July 22, 1911		Apr. 30, 1912				60.0		
K-1							54.2		
K-2							53.5		
K-3	June 18, 1912						59.0		
K-4							54.5		
K-5							38.6		
K-6							38.1		
K-7							42.0		
K-8							41.5		
Niagara							0.0		
Cassin	June 25, 1912						60.4		
Cummings	do						52.7		
Downes							25.0		
Duncan							44.4		
Aylwin	May 21, 1912						61.3		
Parker	May 29, 1912						56.6		
Benham	do						56.0		
Balch	May 22, 1912						58.6		
Mayrant	May 13, 1909		Dec. 1, 1909	Apr. 23, 1910	May 9, 1911	May 12, 1911		July 10, 1911	July 12, 1911
Patterson	June 23, 1910		Oct. 10, 1910	Apr. 29, 1911	Aug. 1, 1911	Sept. 7, 1911		Oct. 7, 1911	Oct. 11, 1911
Fanning	July 6, 1911		Nov. 28, 1911	Jan. 11, 1912	Apr. 15 to 17, 1912.	May 28 to 29, 1912.		June 20, 1912	June 21, 1912
Jarvis	Sept. 22, 1911		Nov. 23, 1911	Apr. 3, 1912				Oct. 21, 1912	
Henley	Jan. 3, 1912		Feb. 29, 1912	Apr. 3, 1912	June 19, 1912		96.9		
Beale	May 22, 1911		Sept. 27, 1911	Apr. 30, 1912	June 19, 1912	June 24, 1912		Aug. 29, 1912	Aug. 30, 1912
Jouett	May 25, 1911		Aug. 8, 1911	Apr. 15, 1912	Apr. 17, 1912	Apr. 30 to May 1, 1912		May 24, 1912	May 25, 1912
Jenkins	do		Oct. 17, 1911	Apr. 29, 1912	May 8, 1912	May 21 to 22, 1912.		June 14, 1912	June 15, 1912
Neptune	June 29, 1910		Sept. 23, 1910	Jan. 21, 1911	June 9, 1911	June 26 to 28, 1911.		Sept. 18, 1911	Sept. 20, 1911
Jupiter	Oct. 21, 1911		May 15, 1912	Aug. 24, 1912			85.6		
Proteus	Feb. 29, 1912		May 31, 1912	Sept. 14, 1912			72.0		

Nereus	Apr. 29, 1912						62.5		
Orion	Dec. 3, 1911		Jan. 26, 1912	Mar. 28, 1912	June 26, 1912	July 9, 1912		July 24, 1912	July 29, 1912
Jason	Jan. 20, 1912						66.7		
Sonoma	Jan. 2, 1912		Feb. 9, 1912	May 11, 1912				Sept. 5, 1912	Sept. 6, 1912
Ontario	Dec. 19, 1911		Feb. 2, 1912	Apr. 11, 1912				Sept. 3, 1912	Sept. 4, 1912

Respectfully,

R. M. WATT,
Chief Constructor United States Navy,
Chief of Bureau.

The SECRETARY OF THE NAVY.

REPORT OF THE CHIEF OF THE BUREAU OF STEAM ENGINEERING.

NAVY DEPARTMENT,
BUREAU OF STEAM ENGINEERING,
Washington, D. C., October 3, 1912.

The appropriations made for the support of the bureau for the fiscal year were as follows:

Bureau of Steam Engineering:	
Steam machinery	$6,256,000.00
Engineering Experiment Station, Annapolis, Md.—	
Experimental and research work	40,000.00
Equipment of building	42,000.00
Completion of boiler house	50,000.00
Cottages for firemen	6,000.00
Salaries, Bureau of Steam Engineering	26,380.00
Allotments made by the department for work under this bureau chargeable to appropriations made for the Bureau of Equipment:	
Equipment of vessels	1,717,256.40
Coal and transportation	432,000.00
Contingent, Bureau of Equipment	2,000.00
Salaries, Bureau of Equipment	17,080.00
Funds available under joint appropriations:	
Increase of Navy, construction and machinery	13,781,785.79
Increase of Navy, torpedo boats	1,690,833.88

OPERATIONS OF THE BUREAU.

During the year plans, specifications, and estimates have been completed and contracts let for the machinery for battleship *No. 36, Nevada,* and *No. 37, Oklahoma,* and torpedo-boat destroyers *Nos. 43 to 50,* inclusive, and for submarines of the K class, while similar work has been completed and the contracts about to be awarded for the gunboat *Sacramento* and the river gunboat *Monocacy*. A number of changes have been made tending to improve the machinery of vessels in the fleet, such as installation of forced lubrication, installation of turbine-driven blowers in destroyers having reciprocating-driven blowers, alterations in propellers to give better speed, etc. Similar improvements will be extended to other vessels as opportunity presents.

The general overhaul of machinery plants of the battleships *Alabama, Illinois, Kearsarge, Kentucky,* and *Wisconsin* and of the protected cruisers *Chattanooga, Cleveland, Denver,* and *Galveston* were completed during the year, three of the battleships having been supplied with new boilers.

The alterations to the Niclausse boilers of the *Colorado* and *Pennsylvania,* which were outlined in the last annual report, have been completed, and after trial in service it is proposed to determine the best method of equipping these vessels with efficient boilers.

The electric machinery for the collier *Jupiter* is practically completed at the works of the General Electric Co., Schenectady, N. Y., and good progress has been made on that portion of the power equipment which is under construction at the Mare Island yard.

The machinery of the *Florida* has been completed at the New York Navy Yard, and the vessel is in service with the Atlantic Fleet. Her official trial demonstrated the excellent character of the workmanship on her machinery, her speed having exceeded that of the sister ship *Utah*, which was built by contract and from the same plans. The construction of this machinery has further demonstrated the fact that a well-equipped navy yard can build machinery at a cost that compares favorably with the cost of similar machinery built by contract.

The establishment of regular overhaul periods for the vessels of the fleet has done much to systematize work in the yards and to prevent accumulation of work at one period, followed by a period of depression, necessitating the discharge of a large number of men. As now arranged, it is possible to keep steadily employed a number of skilled workmen whose retention is desirable, and thus to increase their interest both in the quality and the quantity of work performed. The result is a satisfactory condition for the workmen as well as for the Government.

COAL TESTS.

Tests have been made to establish the relative efficiencies of coal stored for one year under water, under shed, and in the open at New London, Conn. There remains sufficient coal in these various storages to allow a continuation of annual tests extending over a period of 10 years, and it is proposed to carry out these tests so that positive and definite conclusions may be drawn on a question which in the past has been a matter more of speculation and opinion than of conclusive experimentation.

PACIFIC COAST COALS.

The tests of Washington State, Colorado, and British Columbia coals have continued; armored cruisers of the Pacific Fleet having made actual steaming tests with these coals. In addition to the board of naval officers formed to conduct these tests representatives of the Bureau of Mines, Department of the Interior, were on board and rendered valuable assistance.

RADIO TELEGRAPHY.

Since the introduction of high-frequency quenched gap radio apparatus the most urgent work of the department has been the modernizing of old installations. This work has been advanced during the past year as rapidly as limited funds and the slow deliveries of contractors have permitted. Much in this line remains to be accomplished, especially in the case of coastal stations, which as a result of pending legislation will be thrown open to commercial work. All new ships commissioned within the year have been provided with modern apparatus, but it has not been possible to properly equip the entire fleet because sufficient funds were not available.

With the assignment of two additional officers for the administration of this rapidly expanding branch it becomes possible for the first time to foresee a time when other and intrinsically more important features of this activity will be upon a satisfactory basis. These features relate to the development of radio for tactical purposes, experimentation in connection with purely naval needs, proper supervision and training of operators, and the standardization of material and operating methods.

The high-power station at Arlington is rapidly approaching completion.

ELECTRICAL.

The operations of the electrical division of the bureau during the year have been extensive. Specifications covering the electrical work on the battleships *Nevada* and *Oklahoma* and other craft authorized by recent legislation have been formulated. Plans for light, power, and interior communication for new battleships *Texas*, *New York*, *Oklahoma*, *Nevada*, for gunboats, and for destroyers *Nos. 43* to *50*, inclusive, have been prepared. Fixtures have been simplified and made cheaper and more durable.

The electrical control of searchlights has been redesigned and a new mechanical control developed. It is hoped that the improvements made will result in a perfectly satisfactory light for naval purposes.

The entire subject of illumination has been thoroughly investigated, and the new ships will be a great improvement over present practice in this respect.

CONDITION OF MACHINERY OF VESSELS CONSTRUCTED OR UNDER CONSTRUCTION AT PRIVATE SHIPYARDS, JULY 1, 1912.

The following vessels have been tried during the year:

	Knots.
Torpedo-boat destroyer No. 36, *Patterson* (Wm. Cramp & Sons):	
Speed on standardization trial (average of 5 highest runs)	31.918
Speed on 4-hour full-speed trial	29.685
Torpedo-boat destroyer No. 37, *Fanning* (Newport News Shipbuilding & Dry Dock Co.):	
Speed on standardization trial (average of 5 highest runs)	30.814
Speed on 4-hour full-speed trial	29.994
Torpedo-boat destroyer No. 40, *Beale* (Wm. Cramp & Sons):	
Speed on standardization trial (average of 5 highest runs)	32.110
Speed on 4-hour full-speed trial	29.649
Torpedo-boat destroyer No. 41, *Jouett* (Bath Iron Works):	
Speed on standardization trial (average of 5 highest runs)	32.980
Speed on 4-hour full-speed trial	32.266
Torpedo-boat destroyer No. 42, *Jenkins* (Bath Iron Works):	
Speed on standardization trial (average of 5 highest runs)	33.022
Speed on 4-hour full-speed trial	31.272
Battleship No. 30, *Florida* (navy yard, New York):	
Speed on standardization trial (average of 5 highest runs)	21.954
Speed on 4-hour full-speed trial	22.080
Battleship No. 31, *Utah* (New York Shipbuilding Co.):	
Speed on standardization trial (average of 5 highest runs)	21.288
Speed on 4-hour full-speed trial	21.042
Battleship No. 33, *Arkansas* (New York Shipbuilding Co.):	
Speed on standardization trial (average of 5 highest runs)	21.202
Speed on 4-hour full-speed trial	21.051
Submarine No. 24, *E-1* (Electric Boat Co.): Speed on 4-hour full-speed trial.	13.44
Submarine No. 25, *E-2* (Electric Boat Co.): Speed on 4-hour full-speed trial.	13.47
Submarine No. 20, *F-1* (Electric Boat Co.): Speed on 4-hour full-speed trial.	13.812
Submarine No. 21, *F-2* (Electric Boat Co.): Speed on 4-hour full-speed trial.	14.04

The following are the percentages of completion of the machinery of vessels now under construction:

Battleships: *Wyoming*, 95.10; *New York*, 33.14; *Texas*, 66.80; *Nevada*, 6.62; *Oklahoma*, 0.70.

Torpedo-boat destroyers: *Jarvis*, 90.50; *Henley*, 92.09; *Cassin*, 36.74; *Cummings*, 36.74; *Downes*, 6.87; *Duncan*, 41.04; *Aylwin*, 53.17; *Parker*, 49.61; *Benham*, 44.15; *Balch*, 40.41.

Colliers: *Proteus*, 45.90; *Nereus*, 42.40; *Orion*, 100; *Jason*, 54.76; *Jupiter*, 44.

Seagoing tugs: *Sonoma*, 89; *Ontario*, 94.

Submarines: *F-3*, 100; *F-4*, 93.50; *G-1*, 98; *G-2*, 98.10; *G-3*, 13.05; *G-4*, 80.75; *H-1*, 78.96; *H-2*, 78.93; *H-3*, 65.70; *K-1*, 22.51; *K-2*, 20.18; *K-3*, 20.03; *K-4*, 16.50; *K-5*, 2.53; *K-6*, 1.81; *K-7*, 2.43; *K-8*, 2.43.

INSPECTION OF MATERIAL.

Comparison of the inspection work performed during the fiscal year ending June 30, 1912, with that of the preceding fiscal year, is indicated in the table below:

Bureau.	Pounds inspected and passed.	
	1911	1912
Steam Engineering	22,048,299	31,384,718
Yards and Docks	22,356,880	27,423,467
Supplies and Accounts	8,629,180	4,095,397
Construction and Repair	416,087	257,530
Ordnance	1,400,851	89,852
Equipment	366,284	11,750
Navigation	44,643	....
Medicine and Surgery	13,125	....
Miscellaneous	4,045	....
	55,279,394	63,262,714

The amount of material reported under the Bureau of Supplies and Accounts is material under the cognizance of that bureau, in addition to material purchased for the naval supply account, which includes material for other bureaus.

Number of—	1911	1912
Districts	9	9
Officers in charge	8	9
Civilian assistants	27	29
Warrant officers	2	1
Chemists	1	1
Manufacturing establishments at which inspections have been made	532	588

The work in the laboratory at South Bethlehem is performed by an assistant inspector of engineering material, who is also a chemist.

ENGINEERING EXPERIMENT STATION, ANNAPOLIS, MD.

The experiment station at Annapolis has continued its valuable work and has constantly added to the efficiency of the apparatus and the quality of the material purchased for the service; tests and experiments have been continued and much information of value to the service has thus been obtained. The study of corrosion of boilers, condensers, and piping; of lubricating oils which have given trouble in the service have afforded most valuable information, as has the photomicrographic laboratory, particularly when taken in connection with the results of chemical analysis and physical tests.

H. I. Cone,
Engineer in Chief, United States Navy,
Chief of Bureau.

The Secretary of the Navy.

REPORT OF THE PAYMASTER GENERAL OF THE NAVY, CHIEF OF THE BUREAU OF SUPPLIES AND ACCOUNTS.

Navy Department,
Bureau of Supplies and Accounts,
Washington, D. C., November 8, 1912.

Sir: I have the honor to present the report of the Paymaster General of the Navy upon the operations of the Bureau of Supplies and Accounts for the fiscal year ending June 30, 1912, accompanied by tabulated statements showing in detail the cost of maintaining the fleet and navy yards and stations.

These statements cover all transactions involving expenditures for the Naval Establishment and show in principal items as follows:

Amounts drawn from the Treasury	$133,449,012.83
Expenditures on account of construction of new ships, including labor and material	24,930,490.79
Cost of repairs to ships and equipage at home and abroad	9,095,059.17
Cost of maintaining ships in commission (other than receiving ships), including pay of officers and men, subsistence, and incidental expenses	34,175,992.55
Cost of maintaining receiving ships, including pay of officers and enlisted men, subsistence, and incidental expenses	5,861,308.47
Cost to the Navy:	
Of the Lighthouse Establishment	30,366.45
Of the Fish Commission	88,006.78
Of the Naval Militia of the several States	42,806.98

THE BUREAU.

The fiscal year 1912 has been one of the most satisfactory in the history of the bureau. During the last session the Congress granted partial relief to the field service of this bureau in an increase of 30 in the Pay Corps of the Navy; a small increase in the money limit for clerical employees under the appropriations "Pay, Miscellaneous" and "Provisions, Navy" was also granted. These increases were small compared with the needs of the service, but they will in a measure relieve the situation in the bureau and at navy yards and on board ship.

CLERICAL FORCE OF THE BUREAU.

A rearrangement of the clerical force, the transfer of one section which properly came under the supervision of the disbursing officer to the rolls of his office, and the consequent availability of these positions to the present needs of the bureau, the temporary transfers of four clerks from other bureaus and offices of the department, and the increase of the force by two clerks by Congress in its last session have in a measure relieved the acute situation of overwork described in my last annual report.

As has been previously stated to the department and to the committees of Congress, the work of this bureau ranks second to none in the Government departments as regards importance and difficulty. It is therefore to the advantage of the bureau and the Government to retain its clerks over long periods, as their value is increased by experience. It should also be carefully borne in mind that with a permanent personnel increases in number which will be necessary as the naval establishment grows will be minimized.

The present employees are faithful and hard working, voluntarily performing much overtime work, and nearly all of them are underpaid. This is due to the fact that much the larger part of the additions to the bureau's clerical force since 1898 has been in the lower grades of pay, which grades were, even at that time, relatively very large. At the present time the number of clerks in the lower grades of pay are unreasonably out of proportion to the places at higher pay to which these clerks may aspire. For this reason the bureau is frequently handicapped by the loss of its best clerks from the lower grades, who resign to accept positions where the prospect of advancement is greater than in this bureau.

In the estimates for the fiscal year ending June 30, 1914, with a view to correcting this unjust condition, the rates of pay have been readjusted by the bureau in such a manner as to provide for a fair and equitable degree of promotion, and it is recommended that the appropriations be urged on the basis of these estimates. In no other way will it be possible to maintain a permanent and efficient force and avoid the waste and delays incident to the constant training of new appointees.

LACK OF SUITABLE QUARTERS.

Attention is invited to the present very inadequate and widely separated offices occupied by this bureau, and it is strongly urged that steps be taken to secure quarters sufficiently large and well arranged to permit a coordinate grouping and concentration under one roof of the various sections into which the bureau is divided. To be installed in ample, well-located, and centralized rooms would at once result in marked improvement, due to the greater ease and efficiency with which work could be carried on.

In this connection, I desire to refer to the very insanitary quarters now occupied by the officers and clerks of the bookkeeping section, the extremely bad condition of which has been made the subject of adverse comment by the Surgeon General of the Navy. Unnecessary hardship is undergone in being compelled to work under such conditions.

Sufficiently commodious quarters rented in the neighborhood of the Navy Department would afford an immediate relief.

ACCOUNTS OF THE BUREAU.

During the year considerable attention has been given to the subject of so modifying the accounting methods in the bureau as to bring them into complete accord with the requirements of Treasury Circulars Nos. 34 and 35. This has been accomplished so far as appropriations, funds, assets, and liabilities are concerned. On July 1, 1912, the new system was to this extent initiated.

Certain material benefits will be realized by the changes that have been made, not only to the advantage of this bureau, but, through the improved forms of reports and of the data made available, to the other bureaus also. For example, as revised the system will permit of a balance being obtained of the funds group independently of the remaining general ledger accounts, such as "Work in progress," "Stores," and "Capital" accounts, thus enabling them to be closed up monthly coincident with the rendering of reports of appropriation balances to the bureaus concerned. In the past this was accomplished quarterly only.

The system of allotting funds under the appropriations of the several bureaus has been extended, beginning July 1, 1912, to include not only authorized expenditures for labor and material on navy-yard work, but to cover issues of articles of equipage to vessels based upon estimates submitted by general storekeepers.

Allotments will also be set up on the bureau's books for issues of material for use and for purchases on board ships, based upon the quarterly money allotments for each department of the vessel allowed by General Order No. 121, the amounts so charged being divided between the fleets for the purpose of more readily and immediately making necessary adjustments. As allotments will likewise be made to foreign stations, the practice of charging to the appropriations a lump sum as an estimate for "Foreign account" has been discontinued.

It is believed that this extension of the allotment system will be of decided advantage to all bureaus, as it will no doubt result in showing more promptly and accurately the conditions of their respective appropriations.

NAVAL SUPPLY ACCOUNT.

During the past fiscal year the operation of the naval supply account as created by the act of June 25, 1910, and modified by the act of March 4, 1911, has been satisfactory. All stores purchased, with the exception of those named in the law, and ordnance, which was excepted by the Secretary of the Navy, have been taken up immediately after receipt and inspection and held in the naval supply account until issued for use. Materials returned to stock under the naval supply account have been the subject of operating credits to the appropriations to which they were formerly charged, and all stores have been charged to the appropriations covering the object for which they were drawn from stock.

The operating credits for the fiscal year 1911 amounted to $1,001,179.13, which sum was actually turned into the surplus fund of the Treasury and released to other uses of the Government. For the fiscal year 1912 the amount was $914,743.13, making a total of $1,915,922.26 for the two fiscal years the naval supply account has been in operation.

THE COST-ACCOUNTING SYSTEM.

The cost-accounting system which was established at the Boston yard in July, 1909, and in the following year extended to the other industrial yards, is progressing in a most satisfactory manner. Work has been so systematized that returns showing the charges to appropriations are invariably received in the department from the 5th to the 8th of the succeeding month, and invoices for manufactured articles and reports of completed work are furnished promptly, whereas prior to the inauguration of the new system it required from 15 to 30 days to furnish this information.

As the system of cost accounting has developed it has been found possible to extend it in such a manner as to include in the indirect or overhead many charges which have heretofore been omitted. These charges, however, can not actually be made against appropriations and job orders, owing to existing statutes. Until needed changes in the law are secured they will be carried, as they now are, merely as memoranda, which will give most important and interesting data. The charges which it is proposed thus to include in the indirect expense in memorandum form pending the enactment of necessary legislation are: First, pay of the clerical and drafting forces; and, second, the expenses for renewals and replacements when estimated to exceed the amount as laid down in the accounting instructions. As soon, however, as suitable legislation is obtained from the Congress it will be possible immediately to put into effect the actual charging of those items to the indirect expense without any radical changes in either the system or the instructions.

GENERAL STOREKEEPING SYSTEM ASHORE.

Two marked improvements in the general storekeeping system ashore have been brought about by designating particular yards as distributing points for certain purchased and manufactured stores.

Under the system of having large purchases of articles ordinarily used assigned to particular yards as distributing points, not only has uniformity in the articles required for by different vessels been secured, but a considerable reduction in the cost thereof has been effected.

GENERAL STOREKEEPING SYSTEM AFLOAT.

The continued operation of the general storekeeping system afloat has fully justified the faith placed in the theory of the consolidation of stores and accounts under one officer. Economy has resulted from the fact that the loss through waste, deterioration, and obsolescence has been restricted to a great extent. A careful consideration of the amount of work accomplished afloat during the present fiscal year demonstrates the thoroughness with which the single stock of supplies has been maintained on each vessel. The commander in chief of the North Atlantic Station is working with the bureau to reduce stock carried aboard ship and to make vessels of the same class more uniform in all respects.

A pressing necessity is felt for the creation of a permanent branch of general storekeepers' yeomen, or else the adoption of a rigid system by the department which will prevent the frequent change on board ships of yeomen to and from duty in the general storekeeping department. This is now a source of more or less annoyance and inefficiency, varying as the particular conditions on each vessel differ. The proper administration of the general storekeeping system afloat requires yeomen skilled not only in purely clerical work, but also possessed of a fairly wide technical knowledge regarding the supplies and material handled, and this can be gained only through the experience derived from long continued and uninterrupted service in this branch. It is desired also to emphasize here the importance of having on every ship a single, large storeroom, or an assignment of smaller storerooms immediately adjacent to each other, for the proper storage and care of all Title X supplies. With the exception of ships of the *Dreadnought* class, nearly all vessels at present suffer from lack of proper storerooms suitably grouped, it being necessary to carry such material in ill located and widely separated compartments. It is believed that this can be remedied in practically every case by minor alterations in partitions and bulkheads in no way affecting the structural stability of the ship.

Economic storage and issue, with the highest all-round efficiency in the operation of the system afloat, can be attained only with adequate facilities and a trained personnel. The just placing of responsibility and accountability depends upon these requisites absolutely.

PURCHASES AND CONTRACTS.

During the past year the department's efforts to purchase supplies in accordance with the best commercial practice have been continued with considerable success. The opinions and advice of representative firms have been solicited, and commercial methods of classifying material followed as far as possible, with the result that business with the Navy Department is becoming popular with many manufacturers who have heretofore refrained from bidding on Government proposals. Evidence of this is afforded by the great and recent increase in the number of new contractors submitting bids. This is particularly true in the case of manufacturers of textiles, shoes, provisions, and general supplies, who are now adopting the policy of eliminating middlemen and bidding directly on the Navy's proposals. The resultant lowering of prices, as well as the avoidance of confusion and delay, has been marked.

A further economy has been effected through the consolidation of purchases for the various yards, the quantities now purchased under one contract or order being sufficiently large to induce new manufacturers to equip their plants with proper machinery and patterns for handling this class of business promptly and satisfactorily and without the intervention of jobbing houses. This makes it possible to procure material complying strictly with the Navy specifications at quotations figured as closely as possible, and has operated to offset somewhat the general increase in the market price of raw material that has been noted during the past year.

The system of making purchases under annual contracts for those supplies which do not materially fluctuate in price has been extended in the last 12 months to the decided advantage of the Government. A thorough and systematic investigation of the present methods of buying is being carried on with a view to its further extension as well as a greater simplification and improvement generally of the purchasing system.

The present prompt awards of contracts for supplies frequently receive favorable comment from bidders and manufacturers. With the exception of those items which require the test of samples or extensive technical consideration, awards are usually made within five or six days, which is an exceedingly short time when it is considered that from 200 to 300 bids are received at each opening of proposals, all of which have to be closely examined and verified. These bids are received open to the inspection of the public and of everyone interested in the business involved. The short time needed compares most favorably with railroads and large commercial institutions. In the case of metals and other supplies for which there is a widely fluctuating market, and on which bidders submit prices with close margins of profit, or material which is urgently needed, telegraphic awards are made, frequently within an hour or two after the bids have been recorded. and invariably never later than the day of opening.

EMPLOYMENT OF OFFICERS BY CONTRACTORS.

The bureau, in the purchase and inspection of supplies of all kinds, has found itself very much hampered by that section of the naval appropriation act approved June 10, 1896, which made unlawful after June 30, 1897, the employment of any officer in the Navy or Marine Corps, on the active or retired list, by any person or company furnishing naval supplies or war material to the Government. This section reads as follows:

> That hereafter no payment shall be made from appropriations made by Congress to any officer in the Navy or Marine Corps on the active or retired list while such officer is employed, after June thirtieth, eighteen hundred and ninety-seven, by any person or company furnishing naval supplies or war material to the Government, and such employment is hereby made unlawful after said date.

The interests of the Government have been very often inconvenienced, and not infrequently injured, by the operation of this law. Realizing this, the Senate Naval Committee, at the last session of the Congress, favorably passed upon a clause repealing the law in question and intended to be included in the appropriation act for the fiscal year 1913. In spite of this favorable action, however, the section accomplishing the repeal was not incorporated and enacted. The bureau believes that this was due entirely to failure to realize the important advantages that would be gained by the Government if the restrictions of the act of June 10, 1896, were removed, and that if the matter be fully considered at the next session of the Congress these restrictions will be annulled.

It is the bureau's unqualified opinion that the employment of both active and retired officers by contractors would work to the undoubted good of the Government, as these officers, with their special knowledge of the peculiar requirements of the service, and with the best interests of the service at heart, would be in a position greatly to aid the prompt procuring and delivery of supplies and material measuring up fully to the particular and rigid specifications of the department.

SPECIFICATIONS.

At the close of the year 1911 there were 827 standard specifications. During the past year some of these specifications have been largely added to and many of the old ones have been revised, brought up to date, and drawn in language generally more acceptable and understandable to all bidders. In this, effort has been directed toward placing the material used by the Navy on a plane as nearly commercial as possible without ceasing to maintain the high standard of supplies required for use in yards and aboard modern men-of-war. Advice and suggestions from manufacturers and dealers have often been solicited and taken advantage of whenever practicable. Several important conferences with manufacturers' representatives have been held by the Navy Department. The resultant clear, concise specifications, together with rigid inspections at the places of manufacture or delivery, have insured to the Navy a high quality of material with little complaint and friction on the part of contractors.

MEAT INSPECTION.

The valuable service rendered the Navy Department for the past two or three years by the Bureau of Animal Industry in the inspection of meat and meat-food products, butter, and other articles has, within the 12 months just elapsed, with the hearty cooperation of the Department of Agriculture, been materially improved. Central inspection points have been established at the navy yards at Boston, New York, and Philadelphia, to each of which is attached an experienced inspector of the Bureau of Animal Industry and to whom all deliveries of meats and meat-food products for navy yards and vessels are presented for inspection prior to final delivery. This has resulted in the delivery on the part of contractors of a uniformly high quality of provisions at these yards, and the information and instruction obtained by pay officers from these inspectors has done much to improve the inspection of provisions at other points. The Navy Department has also authorized the inspectors of the Bureau of Animal Industry at the various cities where naval contracts are awarded to make frequent inspections of the places of business of contractors in order to insure their being maintained at a high standard of cleanliness and efficiency.

INSPECTION OF CLOTHING AND OTHER MATERIAL.

The practice of maintaining resident inspectors at the mills of contractors for clothing, textiles, shoes, and other articles has been extended wherever practicable, with the result that the Navy Department is procuring, at most reasonable rates, a splendid quality of these supplies. It would be difficult to procure, at retail, material of equal quality at less than double the prices charged to the enlisted personnel. In fact, material rejected by the department's inspectors is frequently sold in stores at higher prices than are paid by the Government for that which is passed as satisfactory and acceptable under contract.

COAL AND FUEL OIL.

Atlantic coast coal.—The highest grade of steaming coal from the Pocahontas, New River, Georges Creek, and Eureka fields has been supplied the fleet at the lowest market prices. The department, through its arrangements with coal suppliers, is able to load at short notice about 40,000 tons per day at Hampton Roads and Baltimore.

Pacific coast coal.—The results of several tests of the most promising of Washington State coals and three of the best British Columbia coals have shown that none of these high-volatile coals is adaptable for naval use, nor is any, on the whole, as economical as eastern coals. Owing to the vital necessity for a source of supply for high-grade coal on the Pacific for the maintenance of our fleet, and feeling assured that such a supply lies only in the Matanuska and Bering River fields of Alaska, the department has recommended that suitable legislation and appropriation be secured for mining and operating certain areas of these fields as early as practicable.

Fuel oil.—During the past fiscal year about 16,000,000 gallons of fuel oil, purchased at a most reasonable price, have been consumed on the Atlantic and Gulf coasts. With only one oil-carrying cargo vessel, deliveries of fuel oil have been somewhat hampered, but not so as seriously to interfere with the movements of vessels. With two additional oil carriers, distribution to the fleet and yards will be much improved.

The necessity of larger tankage facilities at our naval stations is apparent. It is felt sure that the cost of fuel oil would be lessened with increased yard facilities for handling, since the contractors would thus be largely relieved from present demands on their equipage for Government use.

During the fiscal year 1912, 729,903 tons of coal were consumed by the fleet, at a cost of $2,971,543.05, of which 25,633 tons, valued at $107,780.80 were consumed by the yard craft. The following table shows the total consumption aboard naval vessels during each of the fiscal years 1906 to 1912, inclusive:

Years.	Tons.	Years.	Tons.
1906	436,654	1910	651,241
1907	521,990	1911	744,423
1908	618,085	1912	729,903
1909	813,615		

The consumption of fuel oil on board naval vessels during the fiscal year 1912 amounted to 14,146,714 gallons, valued at $340,387.07, while the aggregate consumption during the fiscal year 1911 was 5,778,657 gallons, valued at $131,176.75.

The total quantity of domestic coal purchased was 804,554.61 tons, 189,141.01 tons of which were transported to navy yards, naval stations, and naval coal depots by means of chartered vessels, foreign and American, at a total cost for transportation of $909,005.54, or an average cost for transportation of $4.80+ per ton. The balance of the domestic coal purchased, being 615,413.60 tons, was delivered to navy yards, stations, and coal depots, as well as to vessels of the different fleets, etc., by naval colliers, for which there were no transportation charges.

A total of $2,123,018.74 was paid for all the domestic coal purchased, which amounted to 804,554.61 tons, at an average of $2.63+ per ton, and it will be noted from statement K, Table 3, that the total cost of all coal purchased, including the cost of that transported, was $3,032,024.28, and that the average cost of it, together with the cost of that transported, was $3.76+ per ton.

ADMINISTRATIVE EXAMINATIONS.

It is desired to invite attention to those sections of the Paymaster General's Reports for 1910 and 1911 which recommend that the Congress be requested to enact legislation that will permit the establishment of a suitable system of administrative examinations. As stated in my last report—unless the provisions of the appropriation act for the legislative, executive, and judicial expenses of the Government for the current year can be construed as authorizing the establishment of the system—the Navy Department is the only department of the Government which can not, under existing law, give such an examination to the accounts of all of its disbursing officers.

The great advantages that would undoubtedly arise from preliminary administrative audits are so obvious that the necessity of enumerating them is not felt, especially as my report for the year 1910 goes into the subject with detail. Suffice it to say, that the unqualified success which administrative examinations have proved to be in the War Department and other departments of the Government make it certain that the extension of the system to the Navy Department would yield similarly excellent results.

CONSOLIDATION OF APPROPRIATIONS.

As the new methods of bookkeeping for the Naval Establishment are developed along the lines as laid down by the President's Commission on Economy and Efficiency, the necessity for a rearrangement or consolidation of appropriations for the Navy is clearly shown and becomes more evident.

The reasons for consolidation are pointed out in the Annual Report of the Secretary of the Navy for 1911 and the Annual Reports of the Paymaster General for the fiscal years 1910 and 1911. This consolidation may be made in two ways: First, by consolidating the appropriations of each bureau into one appropriation for the particular bureau; second, by consolidating all the maintenance or operating appropriations into one, which would be allotted to the several bureaus by the department. In this second method such appropriations as "Pay of the Navy," "Public works," and "Coal and transportation," "Provisions, Navy," and others, owing to their special nature, would of necessity be kept separate and not included in the general appropriation. The second method has many advantages to recommend it, but the change would be of such a radical nature that it is not believed expedient to adopt it at the present time. The first method, on the contrary, has the approval of the various bureaus, and its adoption is a matter of urgent need.

In connection with the consolidation of appropriations, the following is quoted from the Annual Report of the Paymaster General for the fiscal year 1911:

> A distinct advantage to the Government would be gained by the removal of the limit on payment under gross appropriations for clerical, drafting, and messenger service, the amounts to be paid for such services to be left to the discretion of the Secretary. The payment for all personal services other than those which enter into the cost of work from the appropriation would undoubtedly prove economical, as at present when the services of draftsmen and

others are needed in excess of the number for which payment has been provided by law they can not be employed. For this reason a considerable loss inures to the Government through delays in obtaining drawings, specifications, and other necessary data.

Not only should this limit on payment under gross appropriations be removed, but the pay of clerical, drafting, and messenger services at navy yards and stations should be included in the cost of work. This is not done at the present time and leads to criticism of the accounting system.

To emphasize the necessity for the consolidation of appropriations, the following is quoted from the same report, as pointing out the best reasons therefor:

> The naval appropriations at the present time are very complex, and many of them carry identical clauses. Their consolidation would simplify all business transactions connected with purchases, permit more accurate cost accounting, facilitate the reporting of expenditures, and result in an economical distribution of funds by administrative authority at the time the necessity for each allotment becomes evident.

APPROPRIATIONS BEARING TWO FISCAL YEARS IN THEIR TITLES.

An anomalous condition not infrequently arises in the purchase of stores of a certain class because of the fact that they are produced at particular times or seasons of the year and may be obtained in better quality and at cheaper prices at these seasons.

This applies more particularly to provisions, many varieties of which are procured more economically in the spring or early summer, at which times it is desirable to lay in the stock for the succeeding fiscal year beginning on the 1st of July. This requires that the department shall contract in the spring for great quantities of stores and must pay for them from the appropriation for the fiscal year then current, as no other appropriation is in existence and the contractor can not be asked to wait, although it is well known when such purchases are made that no part of the provisions are intended for use, or will be used, within the fiscal year.

The legality of this proceeding is questionable, since purchases for the need of a certain fiscal year may not be properly charged to the appropriation of another year. The practice has been to pay for these stores from the appropriation current at the time of purchase, and later to adjust the matter by transferring the debit to the appropriation of the succeeding year after the 1st of July.

The necessity for these purchases at seasonable times is clear, and means should be provided by law which will render the procedure unquestionable.

In order to eradicate this difficulty the appropriation "Provisions, Navy" needs to be provided with the double year hereafter, so that it may undoubtedly be available for expenditure throughout two full years.

In view of the condition which recently confronted the Navy because of the lack of any appropriations for the fiscal year 1913, it would seem a wise measure to extend this principle to all annual appropriations of the Navy for the purpose that the continuation of operations may not be stopped entirely by such contingencies. This principle is already in force as regards many of the working appropriations of the Army, and its extension to the Navy would be in line with good business principles.

THE NAVY RATION.

During the past year every effort has been made to keep down in all possible ways the average cost of the Navy ration, without, at the same time, in any measure decreasing the nutritive value and pleasing variety for which the Navy ration is deservedly noted.

The cost of the ration for some years has been steadily increasing as a result of the continued upward tendency of the prices of subsistence supplies, but it is believed that as a result of instructions issued to the service, limiting the proportions to be used of the more expensive articles constituting parts of the Navy ration, particularly the meat components, that the increase has been much less than proportionate to the great increase in the cost of all food supplies. The meat components, universally largely advanced in prices, oppose the greatest difficulty to effecting an appreciable cost reduction.

COMMISSARY STORE.

The commissary store which was established at the Washington Navy Yard on October 17, 1910, in accordance with the act of Congress of March 3, 1909, has proven an unqualified success and has gone far toward relieving to some extent the burden of the high cost of living borne by officers and enlisted men of the Navy and Marine Corps on duty in the vicinity. The act referred to was a step in the direction of equalizing the pay and allowances of the officers and enlisted men of the Army, Navy, and Marine Corps, as was the intention of the act of May 13, 1908.

The establishment of commissary stores in other navy yards and stations will be effected as soon as pay officers become available for these important duties. The present shortage of officers makes such details impracticable.

AN ADDITIONAL PAYMASTER ON LARGE SHIPS.

The many duties now devolving upon pay officers afloat are such as to render it extremely desirable, if not absolutely necessary, that a junior paymaster be placed on every large ship; this additional officer to act independently of the senior, and not as an assistant to him, being solely responsible and accountable for the performance of all work in the commissary department. Since the establishment of the general storekeeping system on vessels, the number of duties and their inherent multiplicity of detail has so increased that it is physically impossible for one officer to bestow that close attention upon all the different branches of his department which is essential to achieve the most efficient results.

An urgent need is felt for sufficient officers to permit of the placing of an additional paymaster, acting in an independent capacity, upon every large ship. As again pointed out for the purpose of emphasis, the volume of work for the proper execution of which the present single pay officer is directly responsible, has become so great that he can not give that intimate personal supervision to its performance necessary in every way both to an economic administration and the protection of his own interests as the bonded custodian of public properties and money.

CIVIL-SERVICE CLERKS ON FOREIGN DUTY.

The bureau desires to note a hardship which is suffered by clerks who are assigned to duty on stations outside the continental limits of this country. At present a most unjust discrimination operates against them in that, after performing the required two years' service abroad and returning to the United States, they do not find permanent billets awaiting them immediately upon arrival. On the contrary, the only opening offered them under existing conditions is the placing of their names on the eligible list. This, however, in nearly every instance, causes them to go from three to six months before succeeding to new positions, during which period they receive, of course, no pay. Nor is this the only disadvantage they suffer. When they do succeed to new and permanent positions, after enforced waiting, it is usually at a rate of pay considerably less than that which they received either while abroad or in the billets they filled previous to leaving this country. The injustice of this is glaringly apparent. Foreign service, if any difference in status at all is to result, ought to count to their benefit rather than to work to their undoing.

The greatest difficulty is and will continue to be experienced, even under favorable circumstances, in getting competent clerks of the right type to go to duty abroad. The handicap above referred to is making it increasingly harder every year. Unless a remedy is afforded it will in a very short time become practically impossible to secure good men for this service.

In order to relieve the present situation and to avoid the future serious crippling of the clerical force on foreign stations, and as a matter of simple and unquestioned justice to the clerks themselves, it is strongly recommended that corrective departmental action be taken at the earliest opportunity.

BUREAU OF EQUIPMENT.

In the year just closed inconvenience and confusion has continued to be suffered due to the failure of the Congress to enact legislation effecting the full abolishment of the Bureau of Equipment. A greatly needed simplification in work and accounts has thus been prevented.

It is deemed worthy of comment that in the Bureau of Supplies and Accounts alone the complete abolishment of the Bureau of Equipment would make it possible to discontinue the keeping of some 38 accounts. The consequent saving of clerical labor, which could thus be diverted to other work of a pressing and important nature, would result most advantageously, relieving, although in only a slight degree, the inconvenience and delay occasioned by the present shortage of clerks. Voluminous correspondence among the several bureaus of the department would also be obviated, as well as to and from navy yards and cruising vessels—correspondence which is absolutely necessary so long as the Bureau of Equipment is continued, semi-existent, a kind of shadowy, neutral ground and clearing house for all duties and functions difficult to place under other bureaus. Marked improvement and simplification would likewise be felt in the preparation and handling of requisitions everywhere. With each remaining bureau having direct charge of its share of the funds, duties, and functions as distributed, fewer requisitions would need to be prepared; and with those still necessary, the confusion now a continual source of annoyance and trouble would be avoided. A wider latitude for determining charges would be another excellent result. It frequently happens at present that the procuring of absolutely essential items of equipage is delayed and sometimes prevented because none of the bureaus is able to supply them under the restrictions imposed.

SCRAP METALS AND OTHER CONDEMNED MATERIAL.

During the past year the classification and segregation of scrap metals and other waste material has received very careful attention by the bureau, with most gratifying results. A uniform salvage system has been put into effect at the navy yards, Portsmouth, N. H., Boston, Mass., New York, N. Y., and Norfolk, Va., and copper-bearing scrap is now classified and separated into various classes, and wherever possible such scrap is used in the yard foundries at a great saving to the Government. Such metals of this character as can not be advantageously used in the foundries are reworked by commercial smelters, and the pure metal recovered is returned to the Government at a very small cost for smelting.

Scrap steel and iron is now classified and sold in a manner acceptable to the trade, and the prices realized at recent sales have been from $2 to $2.50 per ton more than received for material of the same character a year ago.

The bureau proposes to install this system of handling scrap at the navy yards, Mare Island and Puget Sound, in the near future and has in course of preparation a pamphlet giving in detail the methods to be employed.

DAIRY AT THE NAVAL ACADEMY.

Realizing that the milk furnished the midshipmen at the Naval Academy was of very inferior quality and that it was supplied from insanitary dairies, and being convinced that this one article of food was responsible for a great deal of illness at the academy, the pay officer in charge of the midshipmen's store on August 29, 1910, requested that he be authorized to build a model dairy and purchase a herd of cows to remedy the conditions surrounding the milk supply. Authority was granted by the department to transfer $25,000 from the midshipmen's store fund to the dairy account, and the pay officer in charge was authorized to proceed with the erection of the necessary buildings, and to purchase farm implements and a herd of 60 cows. At later dates the department authorized additional transfers, amounting to $15,000, or a total of $40,000.

The dairy is now in full operation; two cow barns capable of housing 120 cows, and three 200-ton silos have been built, all of the most approved design and construction. A herd of 100 cows has been purchased and a farm of about 100 acres is being cultivated, on which the greater part of the food supply for the cows is raised at a small cost to the Government.

Since the midshipmen have been supplied with milk from this dairy, intestinal troubles have practically disappeared at the Naval Academy.

Further improvement in conditions can be obtained by the purchase of a separate farm for the dairy herd.

The bureau wishes to acknowledge its great indebtedness to the Bureau of Animal Industry, Department of Agriculture, for its advice and assistance, which has contributed in such a large measure to the successful building and operation of the dairy.

CHARACTER OF WORK PERFORMED.

The bureau is gratified to note the uniformly excellent character of the work done under its jurisdiction. This has been accomplished in the face of trying difficulties with regard to the pressing shortage of pay officers and to the lack of sufficient clerical help afloat and ashore.

The duties now placed upon the Pay Corps are extremely varied and responsible, and their proper performance has exacted arduous labor. Night work has frequently been necessitated in the bureau, at the various navy yards and stations, and on board ship, in order that affairs might be kept up to date. That the work of the corps has been so successfully carried on under conditions so unfavorable is a tribute to the zeal and efficiency of both the commissioned and clerical personnel, without whose loyalty and hearty cooperation the excellent condition now existing could not have been attained.

T. J. Cowie,
Paymaster General, United States Navy.

The Secretary of the Navy.

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TABLE 2.—*Balance sheet, general ledger, June 29, 1912.*

DEBITS.

CURRENT ASSETS.

Account No.			Debit.	Credit.	Balance.
1.	GENERAL ACCOUNT OF ADVANCES, CASH IN HANDS OF DISBURSING OFFICERS:				
	Balance, July 1, 1911		$11,148,754.89		
	Advances		131,719,238.82		
	Transfer of funds		18,057,365.15		
	Bills of exchange		2,159,557.91		
	Sundry receipts—				
	Special depositors	$349,848.31			
	Sales of condemned stores	633,846.46			
	Sales of condemned vessels	109,918.75			
	Sales of condemned Marine Corps property	29,078.27			
	Miscellaneous receipts, purchase of discharge, etc	54,716.12			
	Pay, Navy, deposit fund	64,275.00			
	Pay, Marine Corps, deposit fund	10,066.97			
	General account of advances—Naval supply account	35,583.33			
	Naval supply fund	4,552.23			
	Provisions, Navy	1,441,836.56			
	Clothing and small-stores fund	51,435.95			
	Appropriations, applicable to cost accounts	187,771.57			
			2,972,929.52		
	Public bills—Appropriations and funds			$55,388,789.48	
	Public bills—General account of advances—Naval supply account			16,787,394.79	
	Public bills—Naval supply fund			717.54	
	Rolls of officers and enlisted men			32,195,481.91	
	Labor rolls			22,256,779.81	
	Rolls of officers and enlisted men, Marine Corps			3,143,632.60	
	Allotments and advances			4,106,743.34	
	Repayments			1,540,983.01	
	Refunded to bidders, sales of condemned stores			210,241.54	
	Expenses of sales of condemned stores			13,439.70	
	Refunded to special depositors			64,221.22	
	Transfer of funds			18,057,365.15	
	Bills of exchange, paid by fiscal agents, London, England			214,407.61	
	Balance, June 29, 1912			12,077,648.59	$12,077,648.59
			166,057,846.29	166,057,846.29	

STATEMENT A—Continued.

TABLE 2.—*Balance sheet, general ledger, June 29, 1912*—Continued.

DEBITS—Continued.

CURRENT ASSETS—Continued.

Account No.		Debit.	Credit.	Balance.
2.	REPAYMENTS:			
	Balance, July 1, 1911	$18,169.84		
	General account of advances	1,540,963.01		
	Treasury Department—General account of advances	8,192.81		
	Treasury Department—Appropriations	46,891.00		
	Treasury Department		$1,577,062.66	
	Balance, June 29, 1912		37,154.00	$37,154.20
		1,614,236.66	1,614,236.66	
3.	ACCOUNTS RECEIVABLE (Special depositors and other departments):			
	Balance, July 1, 1911	175,203.98		
	General account of advances—Naval supply account	336,703.73		
	Appropriations and funds	74,379.10		
	Labor	293,580.61		
	Refunded, special depositors	64,221.22		
	Profits on work for special depositors	40,002.03		
	Other departments, settlements		530,316.48	
	General account of advances, cash from depositors		349,848.31	
	Balance, June 29, 1912		103,925.88	103,925.88
		984,090.67	984,090.67	
5.	GENERAL ACCOUNT OF ADVANCES—NAVAL SUPPLY ACCOUNT:			
	Balance, July 1, 1911	21,419,654.05		
	Public bills and accounts payable	16,830,746.83		
	Labor (manufacture)	1,911,097.07		
	Manufacture, title Z (stores)	4,923,202.90		
	Transfer of stores	16,940,266.25		
	Appropriations, operating credits	914,743.13		
	Sales	82,963.49		
	Sales (account sales of condemned stores)	580.32		
	Stores issued to appropriations, current year		35,137,086.68	
	Stores issued to appropriations, prior years		185,848.98	
	Stores issued to appropriations, clothing and small-stores fund		6,253.41	
	Stores issued for manufacture, title Z		4,923,202.90	
	Stores issued, account other departments		228,650.08	
	Stores issued, account special depositors		108,053.65	
	Stores issued, account sales		82,963.49	
	Stores issued, account sales condemned stores		580.32	
	Cash receipts (sales, etc.)		35,583.33	
	Balance, June 29, 1912		22,315,031.20	22,315,031.20
		62,973,254.04	62,973,254.04	

DEFERRED ASSETS.

11. Treasury Department—Appropriations, Current Year:			
Balance, July 1, 1911	65,760,827.81		
Naval appropriations, act of Mar. 4, 1911	126,405,509.24		
Appropriations, act of Apr. 8, 1912	30,000.00		
Navy pension fund, interest	420,000.00		
Appropriation for Naval Home, transferred from Navy pension fund	72,829.00		
Audited transfers and adjustments	25,604,995.89		
Navy pension fund, interest, transferred to Naval Home		72,829.00	
Navy pension fund, interest, transferred to the Interior Department		367,009.40	
Audited expenditures, transfers, and adjustments		146,339,672.06	
Balance appropriations, 1911, carried to appropriations prior years		13,686,577.47	
Carried to the "Surplus Fund"		113,527.48	
Balance, June 29, 1912		57,714,546.53	57,714,546.53
	218,294,161.94	218,294,161.94	
12. Treasury Department—Appropriations, Prior Years:			
Balance, July 1, 1911	6,461,016.89		
Appropriations, relief act, Feb. 18, 1911	5,751.75		
Balance of appropriations, fiscal year 1911	13,686,577.47		
Audited transfers, operating credits, fiscal year 1911	1,001,179.13		
Audited transfers and adjustments	1,832,621.55		
Audited expenditures, transfers and adjustments		13,822,338.71	
Carried to the "Surplus fund," (operating credits, 1911)		1,001,179.13	
Carried to the "Surplus fund"		3,998,783.49	
Balance, June 29, 1912		4,164,845.46	4,164,845.46
	22,987,146.79	22,987,146.79	
13. Treasury Department-Pay Navy Deposit Fund:			
Balance, July 1, 1911	596,269.15		
Audited adjustments	358,702.82		
Audited adjustments		472,897.63	
Balance, June 29 1912		482,074.34	482,074.34
	954,971.97	954,971.97	
14. Treasury Department—Pay Marine Corps Deposit Fund:			
Balance, July 1, 1911	215,727.04		
Audited adjustments	115,204.15		
Audited adjustments		72,942 00	
Balance, June 29, 1912		257,989.19	257,989.19
	330,931.19	330,931.19	
15. Treasury Department—Naval Supply Fund:			
Balance, July 1 1911	13,315.77		
Audited adjustments	14,780.89		
Audited adjustments		17,961.82	
Balance, June 29, 1912		10,134.84	10,134.84
	28,096.66	28,096.66	

STATEMENT A—Continued.

TABLE 2.—*Balance sheet, general ledger, June 29, 1912*—Continued.

DEBITS—Continued.

STORES ACCOUNT:

Account No.		Debit.	Credit.	Balance.
23.	NAVAL SUPPLY ACCOUNT:			
	Balance on hand and in transit July 1, 1911, account (*a*)	$20,512,910.22		
	Balance on hand and in transit July 1, 1911, account (*b*)	1,714,751.81		
	Purchase, public bills, and other departments	17,431,200.13		
	Contractors (equipage)	362,877.93		
	Manufacture, title Z	7,338,049.45		
	Ships, titles B and Y	85,115.48		
	Ordnance accounts	15,770,194.04		
	Survey, account (*c*)	1,148,990.66		
	Provisions and clothing	59,898.89		
	Condemned, account (*d*) (returned to store)	46,576.82		
	Material returned to store (not credited to cost accounts)	1,689.65		
	Material returned to store (plant and salvage)	65,851.60		
	Gain by appraisal	120,445.81		
	Gain by inventory	187,573.51		
	Yard cost accounts		$22,918,615.01	
	Ships—Titles B and Y		16,961,086.20	
	Other departments, special depositors and sales		424,201.16	
	Fuel issued to naval officers		13,724.30	
	Ordnance accounts		31,060.91	
	Survey, account (*c*)		6,684.58	
	Condemned, account (*d*)		366,194.93	
	Provisions and clothing		39,978.72	
	Deterioration and waste, title W (loss by appraisal)		427,990.06	
	Deterioration and waste, title W (loss by inventory)		180,565.20	
	Balance on hand and in transit, June 29, 1912		23,476,024.93	$23,476,024.93
		64,846,126.00	64,846,126.00	
31,35.	ORDNANCE ACCOUNT:			
	Balance on hand and in transit July 1, 1911 (account *aa*)	45,025,194.79		
	Balance on hand and in transit July 1, 1911 (account *bb*)	6,076,275.83		
	Purchase, public bills and other departments	11,966,679.81		
	Contractors, equipage	41.25		
	Manufacture, title Z	18,237,577.60		
	Ships, titles B and Y	3,246,004.62		
	Naval supply account	31,060.91		
	Survey, account (*c*)	5,729,373.52		
	Condemned, account (*d*) (returned to store)	3,747.35		
	Stores in custody of War Department and others	17,285.39		
	Material returned to store (not credited to cost accounts)	49,226.70		

Material returned to store (plant and salvage)	97,049.80		
Gain by appraisal	101,838.68		
Gain by inventory	184,135.98		
Yard cost accounts		5,632,901.63	
Ships, titles B and Y		11,270,052.60	
Naval supply account		15,770,194.04	
Survey, account (*c*)		438,241.24	
Condemned, account (*d*)		61,605.62	
Deterioration and waste, title W (loss by appraisal)		1,225,674.18	
Deterioration and waste, title W (loss by inventory)		30,799.37	
Other departments, special deposits and sales		1,804.06	
Account, stores in custody of War Department and others		184,966.49	
Balance on hand and in transit June 29, 1912		56,149,253.00	56,149,253.00
	90,765,492.23	90,765,492.23	
39. SURVEY ACCOUNT (*c*):			
Balance on hand and in transit July 1, 1911	2,031,525.65		
Purchase, other departments	1,045.62		
Contractors (equipage)	335.00		
Naval supply account	6,684.58		
Ordnance account	438,241.24		
Ships, titles B and Y	7,249,843.71		
Condemned, account (*d*) (returned to store)	12,846.76		
Material returned to store (not credited to cost accounts)	6,525.23		
Material returned to store (plant and salvage)	119,176.17		
Gain by appraisal	66,371.86		
Gain by inventory	30,271.03		
Naval supply account		1,148,990.66	
Ordnance account		5,729,373.52	
Condemned, account (*d*)		424,377.35	
Deterioration and waste, title W (loss by appraisal)		1,498,537.31	
Balance on hand and in transit June 29, 1912		1,161,588.01	1,161,588.01
	9,962,866.85	9,962,866.85	
39a. STORES IN CUSTODY OF WAR DEPARTMENT AND OTHERS:			
Balance on hand July 1, 1911	527,364.17		
Ordnance account	184,966.49		
Ordnance account		17,285.39	
Balance on hand June 29, 1912		695,045.27	695,045.27
	712,330.66	712,330.66	

STATEMENT A—Continued.

TABLE 2.—*Balance sheet, general ledger, June 29, 1912*—Continued.

DEBITS—Continued.

STORES ACCOUNT—Continued.

Account No.		Debit.	Credit.	Balance.
40.	CLOTHING AND SMALL STORES FUND (STORES ACCOUNT):			
	Balance July 1, 1911	$2,939,086.12		
	Purchase, Marine Corps, etc.	1,709,952.45		
	Clothing factory	834,128.51		
	Naval supply account	3,657.05		
	Gain by advanced prices	197,933.61		
	Ships' store	216.93		
	On hand, clothing factory, June 29, 1912	84,689.78		
	On hand, condemned to be sold, June 29, 1912	12,725.93		
	Difference between cost and issuing prices, July 1, 1911	234,479.00		
	Issues to officers and enlisted men (reimbursable) and sales for cash		$1,980,954.37	
	Clothing factory		478,667.09	
	Loss on issues, condemned, etc.		118,050.26	
	On hand, clothing factory, July 1, 1911		114,129.59	
	On hand, condemned to be sold, July 1, 1911		12,684.70	
	Difference between cost and issuing prices, June 29, 1912		209,647.14	
	Balance on hand, in transit, at clothing factory, and condemned to be sold, June 29, 1912		3,102,736.23	
		6,016,869.38	6,016,869.38	$3,102,736.23
42.	CONTINGENT STORES ABOARD SHIPS:			
	Balance, July 1, 1911	56,325.67		
	Carried to account, stores on board ships, Titles B and Y		56,325.67	
43.	CLOTHING AND PUBLIC PROPERTY OF THE MARINE CORPS:			
	Balance, July 1, 1911	3,447,615.23		
	Purchase and other sources	1,467,364.97		
	Cost account, Marine Corps		1,444,774.78	
	Balance, June 29, 1912		3,470,205.42	3,470,205.42
		4,914,980.20	4,914,980.20	
44.	PROVISIONS AND SHIPS' STORE:			
	Balance, July 1, 1911	1,749,502.55		
	Purchase, other departments, etc.	7,394,618.61		
	Other accounts, etc.	67,404.68		
	Gain on advanced prices, etc.	115,889.06		

Cost accounts		5,574,271.36	
Reimbursable issues and sales for cash		1,626,594.50	
Condemned by survey, etc		120,886.84	
Balance, June 29, 1912		2,006,662.20	2,006,662.20
	9,327,414.90	9,327,414.90	
44a. PROVISIONS, NAVAL AUXILIARIES:			
Purchases	61,861.18		
Other accounts	20,774.23		
Cost accounts		65,252.42	
Condemned by survey		1,030.00	
Reimbursable issues and sales for cash		6,105.95	
Balance, June 29, 1912		10,247.04	10,247.04
	82,635.41	82,635.41	
5. STORES ON BOARD SHIPS, TITLES B AND Y:			
Balance, July 1, 1911	67,274,119.83		
Balance, July 1, 1911, contingent stores account	56,325.67		
Purchases and other departments	401,999.88		
Naval supply account	16,961,086.20		
Ordnance account	11,270,052.60		
Cost accounts		7,501,355.55	
Naval supply account		85,115.48	
Ordnance account		3,246,004.62	
Survey, account (c)		7,249,843.71	
Other accounts		16,263.81	
Balance, June 29, 1912		77,865,001.01	77,865,001.01
	95,963,584.18	95,963,584.18	
46. MEDICAL STORES:			
Balance, July 1, 1911	173,264.41		
Purchase	202,821.31		
Cost accounts		189,932.20	
Balance, June 29, 1912		186,153.52	186,153.52
	376,085.72	376,085.72	
47. WORK IN PROGRESS, NAVAL SUPPLY ACCOUNT:			
Balance, July 1, 1911	1,760,013.89		
Yard-cost accounts	6,845,909.33		
Naval supply account (completed work)		7,338,049.45	
Balance, June 29, 1912		1,267,873.77	1,267,873.77
	8,605,923.22	8,605,923.22	

STATEMENT A—Continued.

TABLE 2.—*Balance sheet, general ledger, June 29, 1912*—Continued.

DEBITS—Continued.

Account No.	STORES ACCOUNT—Continued.	Debit.	Credit.	Balance.
47a.	WORK IN PROGRESS, ORDNANCE ACCOUNT:			
	Balance, July 1, 1911	$7,419,523.54		
	Yard-cost accounts	15,372,317.09		
	Ordnance account (completed work)		$18,237,577.60	
	Balance, June 29, 1912		4,554,263.03	$4,554,263.03
		22,791,840.63	22,791,840.63	
	COST ACCOUNTS.			
50.	Construction of vessels, title A (Statement B, Tables 1 and 2)	24,930,490.79		
51.	Repairs to vessels, title D (Statement B, Tables 1 and 2)	8,862,760.57		
52.	Repairs to equipage of ships in commission, title P (Statement B, Tables 1 and 2)	232,298.60		
53.	Real estate and chattels, industrial, title E (Statement B, Tables 1 and 2)	3,845,314.15		
54.	Real estate and chattels, military, title R (Statement B, Tables 1 and 2)	4,790,464.18		
55.	Machinery plant, title F (Statement B, Tables 1 and 2)	1,226,941.17		
56.	Maintenance of yards and stations, industrial, title G (Statement B, Tables 1 and 2)	2,714,436.39		
57.	Maintenance of yards and stations, military, title S (Statement B, Tables 1 and 2)	6,155,068.04		
58.	Maintenance of tugs and lighters, title T (Statement B, Tables 1 and 2)	751,155.58		
59.	Models and experiments, title N (Statement B, Tables 1 and 2)	583,059.34		
59.	Naval Militia, title O (Statement B, Tables 1 and 2)	20,545.88		
60.	Leave, holiday, and incidental expenses, title V (Statement B, Tables 1 and 2)	4,529,359.73		
63.	Miscellaneous, Marine Corps (public bills) (Statement B, Tables 1 and 2)	3,309,761.29		
63.	Miscellaneous, Marine Corps (labor and material) (Statement B, Tables 1 and 2)	83,068.98		
71.	Repairs to supplies in store, title W (Statement B, Tables 1 and 2)	38,058.95		
71a.	Repairs and alterations to equipage and supplies, Ordnance, title Q (Statement B, Tables 1 and 2)	714,611.15		
	Overabsorbed indirect expense	*14,570.01*		
	Carried to stores and work cost account		62,772,814.78	
		62,772,814.78	62,772,814.78	
	COST ACCOUNTS, PERSONNEL, ETC.			
81.	Cost of commission, title C (Statement F)	40,147,568.90		
82.	Maintenance of yards and stations, industrial, title G (Statement B, Table 18)	1,013,503.47		
83.	Maintenance of yards and stations, military, title S (Statement B, Table 18)	2,513,336.00		
84.	Maintenance of tugs and lighters, title T (Statement B, Table 18)	789,948.57		
85–86.	Personnel unassigned, title H	3,718,978.87		
87.	Officers on special duty, title I	1,802,165.69		
88.	Officers on duty with Lighthouse Establishment, title L	30,366.45		

89.	Miscellaneous	2,422,722.70		
63.	Marine Corps, pay	3,270,994.14		
	Carried to personnel cost account		47,320,625.45	
	Carried to stores and work account		8,388,959.34	
		55,709,584.79	55,709,584.79	
	LOSS FROM DETERIORATION IN STORES.			
	Loss by appraisal:			
66.	Naval supply account	427,990.06		
68.	Ordnance account	1,226,674.18		
70.	Survey account (*c*)	1,498,537.31		
72.	Condemned to be sold:			
	Naval supply account	366,194.93		
	Ordnance account	61,605.62		
	Survey account (*c*)	424,377.35		
90.	Provisions and ships store	120,886.84		
	Provisions, naval auxiliaries	1,030.00		
	Loss by inventory:			
	Naval supply account	180,565.20		
	Ordnance account	30,799.37		
	Carried to personnel cost account		121,916.84	
	Carried to stores and work account		4,215,744.02	
		4,337,660.86	4,337,660.86	
	Total debits			271,108,403.46

CREDITS.

	LIABILITIES.			
100.	TREASURY DEPARTMENT, GENERAL ACCOUNT OF ADVANCES:			
	Balance, July 1, 1911		12,504,504.12	
	Advances to disbursing officers		131,719,238.82	
	Bills of exchange		1,729,774.01	
	Allotments and advances checked on rolls		4,093,223.56	
	Due and unpaid on rolls of officers and enlisted men, transferred		5,258,351.10	
	Audited adjustments and transfers		41,612,859.95	
	Repayments, general account of advances (not reported)		8,192.81	
	Allotments and advances paid	4,106,743.34		
	Repayments covered in	1,076,442.64		
	Due and unpaid on rolls of officers and enlisted men, received	5,013,880.98		
	Audited adjustments and transfers	171,821,111.75		
	Balance, June 29, 1912	14,907,965.66		14,907,965.66
		196,926,144.37	196,926,144.37	

STATEMENT A—Continued.

TABLE 2.—*Balance sheet, general ledger, June 29, 1912*—Continued.

CREDITS—Continued.

LIABILITIES—Continued.

Account. No.	Debit.	Credit.	Balance.
101. BILLS OF EXCHANGE:			
Balance, July 1, 1911		$73,247.54	
Disbursing officers' accounts		2,159,557.91	
Treasury Department, general account of advances	$1,729,774.01		
Fiscal agents, London, England	214,407.61		
Balance, June 29, 1912	288,623.83		$288,623.83
	2,232,805.45	2,232,805.45	
102. PUBLIC BILLS, NAVAL SUPPLY ACCOUNT:			
Balance, July 1, 1911		326,139.43	
Purchases for which public bills have been prepared		17,380,147.22	
Reservations and liquidated damages (repaid)		132,908.87	
Public bills, general account of advances	16,788,112.33		
Public bills, appropriations	321,179.33		
Reservations and liquidated damages	327,916.46		
Balance, June 29, 1912	401,987.40		401,987.40
	17,839,195.52	17,839,195.52	
104. ACCRUED PAY AND ALLOWANCES, NAVY AND MARINE CORPS:			
Balance due and unpaid, rolls of officers and enlisted men, July 1, 1911		3,075,417.37	
Appropriations, current year		38,498,071.37	
Appropriations, prior years		18,327.18	
Pay, Navy, deposit fund		462,569.30	
Pay, Marine Corps, deposit fund		1,080.00	
Due and unpaid, rolls of officers and enlisted men, received		5,013,880.98	
Cash charged on rolls, officers and enlisted men	32,195,481.91		
Credits to appropriations	275,866.36		
Credits to naval hospital fund	140,546.16		
Credits to Navy fines and forfeitures	623,016.36		
Credits to clothing and small stores fund	1,597,773.44		
Credits to Pay of the Navy, deposit fund	271,580.07		
Credits to Pay of the Marine Corps, deposit fund	18,486.91		
Credits to Miscellaneous receipts, purchase of discharge	6,923.30		
Credited to Treasury Department, general account of advances (allotments and advances)	4,093,223.56		
Due and unpaid on rolls, transferred	5,258,351.10		
Balance, June 29, 1912	2,588,097.03		2,588,097.03
	47,069,346.20	47,069,346.20	

105. **LABOR ROLLS ACCRUED:**				
Balance, July 1, 1911			1,798,026.57	
Appropriations, current year			19,626,071.45	
Appropriations, prior years			223.54	
General account of advances, naval supply account (manufacture)			1,911,097.07	
Special depositors and other departments of the Government			293,580.61	
Clothing and small stores fund (clothing factory)			328,587.98	
Expenses, sales of condemned material			7,175.24	
General account of advances		22,256,779.81		
Audited settlements of unclaimed wages		387.16		
Balance, June 29, 1912		1,707,595.49		1,707,595.49
		23,964,762.46	23,964,762.46	
106. **ACCOUNTS PAYABLE TO OTHER DEPARTMENTS OF THE GOVERNMENT:**				
Balance, July 1, 1911			21,878.89	
Appropriations and funds			1,508,745.09	
Audited settlements		1,519,442.07		
Balance, June 29, 1912		11,181.91		11,181.91
		1,530,623.98	1,530,623.98	
107. **RESERVATIONS AND LIQUIDATED DAMAGES, NAVAL SUPPLY ACCOUNT:**				
Balance, July 1, 1911			35,877.67	
Public bills, naval supply account			327,916.46	
Public bills, naval supply account		132,908.87		
Balance, June 29, 1912		230,885.26		230,885.26
		363,794.13	363,794.13	
DEFERRED CREDITS.				
111. **APPROPRIATIONS, CURRENT YEAR:**				
Balance July 1, 1911	$57,280,569.01			
Less amount carried to appropriations, prior years, July 1, 1911	6,899,751.20			
			50,380,817.81	
Appropriations—				
Naval act Mar. 4, 1911	126,405,509.24			
Act Apr. 4, 1912	30,000.00			
			126,435,509.24	
Transfers between appropriations and charges to naval supply account			17,118,120.81	
Other sources—				
Appropriation, Naval Home, transferred from Navy pension fund, interest, act Mar. 4, 1911	72,829.00			
Navy pension fund, interest, balance Naval Home, 1910	7,320.38			
Navy pension fund, interest ($14,000,000 at 3 per cent)	420,000.00			
Ordnance material, proceeds of sales	89,347.89			
Sales for cash	1,599,040.47			
Credits on rolls, officers and enlisted men	1,039,041.00			
Repayments	37,047.14			
Allotments, equipment appropriations	7,921,300.00			
Adjustments	1,136,543.84			
			12,322,469.72	

STATEMENT A—Continued.

TABLE 2.—*Balance sheet, general ledger, June 29, 1912*—Continued.

CREDITS—Continued.

DEFERRED CREDITS—Continued.

Account No.			Debit.	Credit.	Balance.
111.	APPROPRIATIONS, CURRENT YEAR—Continued.				
	Other sources—Continued.				
	Public bills, supplies purchased		$12,239,785.44		
	Public bills, supplies afloat, and charges to cost of commission		5,223,525.57		
	Public bills charged to direct objects		33,042,714.32		
	Labor		19,626,071.45		
	Charged for stores drawn from the naval supply account		35,137,086.68		
	Transfers		536,420.06		
	Miscellaneous expenditures—				
	Accrued pay and allowances, officers and enlisted men	38,498,071.37			
	Marine Corps rolls, officers and enlisted men	3,014,934.59			
	Navy pension fund, interest, transferred to Naval Home, act Mar. 4, 1911	72,829.00			
	Navy pension fund, interest, transferred to the Interior Department	367,009.40			
	Allotments, equipment appropriations	7,921,300.00			
	Adjustments	1,090,660.48			
			50,964,804.84		
	Carried to surplus fund		113,527.48		
	Balance June 29, 1912		49,372,981.74		$49,372,981.74
			206,256,917.58	$206,256,917.58	
112.	APPROPRIATIONS, OPERATING CREDITS (act June 25, 1910):				
	Balance, July 1, 19111			1,001,179.13	
	General account of advances, naval supply account—				
	Appropriations current year	897,927.08			
	Appropriations prior years	16,816.05			
				914,743.13	
	Carried to account appropriations prior years		1,001,179.13		
	Balance June 29, 1912		914,743.13		914,743.13
			1,915,922.26	1,915,922.26	
113	APPROPRIATIONS, PRIOR YEARS:				
	Balance July 1, 1911	6,660,489.38			
	Amount brought from appropriations, current year, July 1 1911	6,899,751.20			
				13,560,240.58	
	Appropriations, relief act, Feb. 18, 1911			5,751.75	
	Account appropriations, operating credits			1,001,179.13	
	Transfers between appropriations and charges to naval supply account			228,542.81	

Other sources—				
Sales for cash	30,478.16			
Credits on rolls, officers and enlisted men	49.95			
Repayments	9,843.86			
Adjustments	126,147.29			
			166,519.26	
Public bills, supplies purchased		3,137,530.97		
Public bills, supplies afloat, and charges to cost of commission		128,494.52		
Public bills charged direct to objects		1,810,623.76		
Labor		223.54		
Charged for stores drawn from the naval supply account		185,848.98		
Transfers		95,243.34		
Miscellaneous expenditures—				
Accrued pay and allowances, officers and enlisted men	18,327.18			
Marine Corps rolls, officers and enlisted men	128,698.01			
Appropriations, Naval Home, 1910, transferred to Navy pension fund, interest	7,320.38			
Adjustments	423,411.24			
		577,756.81		
Carried to surplus fund (operating credits)		1,001,179.13		
Carried to surplus fund		3,998,783.49		
Balance June 29, 1912		4,026,548.99		4,026,548.99
		14,962,233.53	14,962,233.53	
122. MISCELLANEOUS APPROPRIATIONS, RECEIPTS IN SUSPENSE:				
Balance July 1, 1911			6,843.89	
General account of advances, cash receipts			89.50	
Adjustments		6,933.39		
		6,933.39	6,933.39	
FUNDS:				
114. PAY OF THE NAVY, DEPOSIT FUND:				
Balance July 1, 1911			688,949.20	
Deposits by enlisted men, cash			64,275.00	
Deposits by enlisted men, credited on rolls			271,580.07	
Repayments of deposits, charged on rolls		462,569.30		
Audited claims		1,770.00		
Balance June 29, 1912		560,464.97		560,464.97
		1,024,804.27	1,024,804.27	
115. PAY OF THE MARINE CORPS, DEPOSIT FUND:				
Balance, July 1, 1911			236,278.39	
Deposits by enlisted men, cash			10,066.97	
Deposits by enlisted men, credited on ships' rolls			18,486.91	
Repayments of deposits, charged on rolls, ships		1,080.00		
Audited claims		489.00		
Balance, June 29, 1912		263,263.27		263,263.27
		264,832.27	264,832.27	

STATEMENT A—Continued.

TABLE 2.—*Balance sheet, general ledger, June 29, 1912*—Continued.

CREDITS—Continued.

FUNDS—Continued.

Account No.			Debit.	Credit.	Balance.
116.	CLOTHING AND SMALL-STORES FUND:				
	Balance, July 1, 1911			$5,018,220.24	
	Issues charged on ships and yard rolls			1,597,773.44	
	Sales for cash			51,435.95	
	Proceeds of sale of condemned stores			14,889.56	
	Transfers			270,880.52	
	Clothing and small-stores fund, stores account (receipts)			3,077,783.26	
	Public bills		$1,655,581.26		
	Labor, clothing factory		328,587.98		
	General account of advances—Naval supply account		6,253.41		
	Transfers		617.45		
	Clothing and small-stores fund, stores account (expenditures)		2,914,133.15		
	Balance, June 29, 1912		5,125,809.72		5,125,809.72
			10,030,982.97	10,030,982.97	
16.	NAVAL SUPPLY FUND, LIQUIDATION ACCOUNT:				
	Balance, July 1, 1911			28,313.87	
	General account of advances, cash receipts			4,552.23	
	Public bills		717.54		
	Transfers		130.00		
	Adjustments		21,883.72		
	Balance, June 29, 1912		10,134.84		10,134.84
			32,866.10	32,866.10	
123.	FUNDED VALUE OF GENERAL ACCOUNT OF ADVANCES, NAVAL SUPPLY ACCOUNT:				
	Balance, July 1, 1911			20,065,359.09	
	Balance, June 29, 1912		20,065,359.09		20,065,359.09
	GAINS IN STORES:				
	Gain by appraisal—				
	Naval supply account	$120,445.81			
	Ordnance account	101,838.68			
	Survey, account (c)	66,371.86			
				288,656.35	

	Gain on advanced prices, provisions and ships' stores			115,889.06	
	Gain by inventory—				
	Naval supply account	187,573.51			
	Ordnance account	184,135.98			
	Survey, account (c)	30,271.03			
				401,960.52	
	Carried to stores and work account		690,636.87		
	Carried to personnel cost account		115,889.06		
			806,525.93	806,525.93	
	MATERIAL RETURNED TO STORE:				
	Not credited to cost accounts—				
	Naval supply account	1,689.65			
	Ordnance account	49,226.70			
	Survey, account (c)	6,525.23			
				57,441.58	
	Plant and salvage—				
	Naval supply account	65,851.60			
	Ordnance account	97,049.80			
	Survey, account (c)	119,176.17			
				282,077.57	
	Condemned, account (d)—				
	Naval supply account	46,576.82			
	Ordnance account	3,747.35			
	Survey, account (c)	12,846.76			
				63,170.93	
	Carried to stores and work account		402,690.08		
			402,690.08	402,690.08	
	SUNDRY ITEMS NOT CREDITED TO COST ACCOUNTS:				
	Appropriations, checkages on rolls officers and enlisted men, hospital fund, fines and forfeitures, etc			1,039,090.95	
	Appropriations, cash receipts applicable to cost accounts			187,771.57	
	Appropriations, Marine Corps			62,489.75	
	Carried to stores and work cost account		250,261.32		
	Carried to personnel cost account		1,039,090.95		
			1,289,352.27	1,289,352.27	
	MISCELLANEOUS RECEIPTS TO BE COVERED INTO THE TREASURY:				
118.	Profits on work done for special depositors			54,615.43	
119.	Sales of condemned stores			744,909.63	
120.	Purchase of discharge			211,151.62	
	Profits on ships' stores			15,079.27	
4.	Sales of condemned stores, trust account			124,992.46	
121.	Audited settlements		727,331.72		
	Balance, June 29, 1912		423,416.69		423,416.69
			1,150,748.41	1,150,748.41	

STATEMENT A—Continued.

TABLE 2—*Balance sheet, general ledger, June 29, 1912*—Continued.

CREDITS—Continued.

STORES AND WORK COST ACCOUNT:

Account No.			Debit.	Credit.	Balance.
126.	Balance, July 1, 1911			$155,656,767.84	
	Public bills paid—				
	Appropriations, supplies ashore	$15,377,316.41			
	Appropriations, supplies afloat, etc	5,352,020.09			
	Appropriations, charged to cost accounts	34,853,338.08			
	General account of advances, naval supply account	16,787,394.79			
	Naval supply fund	717.54			
				72,370,786.91	
	Accrued labor—				
	Appropriations	19,626,294.99			
	Clothing and small stores fund (clothing factory)	328,587.98			
	General account of advances—Naval supply account	1,911,097.07			
	Special deposits, other Government departments, etc	300,755.85			
				22,166,735.89	
	Stores received from miscellaneous sources—				
	Contractors with new vessels	363,254.18			
	Other Government departments and Marine Corps	698,706.22			
	Provisions and clothing	59,898.89			
	Medical stores	202,821.31			
				1,324,680.60	
	Public bills paid, not taken up in ordnance account			559,349.06	
	Cost accounts—				
	Gain in stores	690,636.87			
	Material returned to store	402,690.08			
	Appropriations, sundry items	250,261.32			
				1,343,588.27	
	Public bills and accounts payable, stores account—				
	Provisions	7,425,340.98			
	Medical stores	189,339.00			
	Ordnance account	933,082.66			
	Marine Corps	39,899.56			
			$8,587,662.20		

126.	Transfers between miscellaneous stores accounts, etc.—				
	Naval supply account to provisions and clothing	39,978.72			
	Work in progress to provisions	6,045.52			
	Naval supply account, officers' fuel	13,724.30			
	Manufacture, clothing factory	327,701.66			
	Other Government departments, special depositors, etc	672,807.45			
	Appropriations, sales for cash	187,771.57			
	Miscellaneous	16,263.81			
			1,264,293.03		
	Cost accounts—				
	Yards and stations	62,772,814.78			
	Ships and miscellaneous	8,388,959.34			
	Loss from deterioration in stores	4,215,744.02			
			75,377,518.14		
	Balance, June 29, 1912		168,192,435.20		168,192,435.20
			253,421,908.57	253,421,908.57	
	PERSONNEL COST ACCOUNT:				
127.	Balance, July 1, 1911			1,749,502.55	
	Provisions stores account, receipts			7,544,658.70	
	Rolls of officers and enlisted men, Navy			38,537,469.07	
	Rolls of officers and enlisted men, Marine Corps			3,143,632.60	
	Credits to cost accounts—				
	Checkages on rolls, officers and enlisted men	1,039,090.95			
	Gain in provisions	115,889.06			
				1,154,980.01	
	Cost accounts—				
	Ships and miscellaneous	47,320,625.45			
	Losses in provisions	121,916.84			
			47,442,542.29		
	Appropriations, applicable to cost accounts		1,039,090.95		
	Appropriations, provisions Navy, issues for cash		1,631,700.45		
	Balance, June 29, 1912		2,016,909.24		2,016,909.24
			52,130,242.93	52,130,242.93	
	Total credits				271,108,403.46

STATEMENT A—Continued.

TABLE 3.—*Statement showing cost of the Naval Establishment, including money and material charged to cost accounts, personnel and miscellaneous; also expenditures on account of the Naval Establishment, including increases and decreases in stores accounts.*

COST ACCOUNTS (see accounts 126 and 127):				
Labor and material in yard work and public bills charged direct to objects		$62,772,814.78		
Ships and miscellaneous		55,709,584.79		
Loss from deterioration in stores		4,337,660.86		
			$122,820,060.43	
Miscellaneous credits—				
Gain in stores	$806,525.93			
Material returned to store	402,690.08			
Appropriations, checkages on rolls, officers and enlisted men	1,039,090.95			
Appropriations, sundry items	250,261.32			
			2,498,568.28	
Total cost of the Naval Establishment				$120,321,492.15

	On hand July 1, 1911.	On hand June 30, 1912.	Increase.	Decrease.	
INCREASES AND DECREASES IN STORES ACCOUNT:					
Naval supply account	$22,227,662.03	$23,476,024.93	$1,248,362.90		
Ordnance account	51,101,470.62	56,149,253.00	5,047,782.38		
Survey account (c)	2,031,525.65	1,161,588.01		$869,937.64	
Stores in custody of War Department and others	527,364 17	695,045.27	167,681.10		
Clothing and small stores	2,939,086.12	3,102,736.23	163,650.11		
Clothing and public property of the Marine Corps	3,447,615.23	3,470,205.42	22,590.19		
Provisions and ships' store	1,749,502.55	2,006,662.20	257,159.65		
Provisions, naval auxiliaries		10,247.04	10,247.04		
Stores on board ships, titles B and Y	67,330,445.50	77,865,001.01	10,534,555.51		
Medical stores	173,264.41	186,153.52	12,889.11		
Work in progress, naval supply account	1,760,013.89	1,267,873.77		492,140.12	
Work in progress, ordnance account	7,419,523.54	4,554,263.03		2,865,260.51	
	160,707,473.71	173,945,053.43	17,464,917.99	4,227,338.27	
Increase, net					13,237,579.72
Total expenditures on account of the Naval Establishment					133,559,071.87

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STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures.*

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Ammen:					
Increase Navy, construction and machinery				$6,728.00	
Hull and fittings	$886.77	$387.14	$595.04		
Auxiliary machinery	349.81	141.17	1,289.93		
Wireless telegraphy	15.34	5.26	.20		
Interior communication	154.57	53.71	57.45		
Miscellaneous	37.74	11.63	10.32		
	1,444.23	598.91	1,952.94	6,728.00	
Increase Navy, equipment—					
Wireless telegraphy			*7.00*		
Miscellaneous			31.94		
			24.94		
Increase Navy, armor and armament—					
Hull and fittings	7.35	1.84			
	7.35	1.84			
Total Ammen	1,451.58	600.75	1,977.88	6,728.00	$10,758.21
Arkansas:					
Increase Navy, construction and machinery				1,638,004.60	
Electric plant			528.18		
Miscellaneous			892.00		
			1,420.18	1,638,004.60	
Increase Navy, equipment—					
Hull and fittings	52.02	20.54	126.88		
Miscellaneous			18,990.00		
	52.02	20.54	19,116.88		
Increase Navy, armor and armament				184,653.78	
Permanent ordnance fittings	25,726.01	6,821.90	28,775.50		
	25,726.01	6,821.90	28,775.50	184,653.78	
Total Arkansas	25,778.03	6,842.44	49,312.56	1,822,658.38	1,904,591.41
Aylwin:					
Increase Navy, construction and machinery				302,440.00	
Total Aylwin				302,440.00	302,440.00
Balch:					
Increase Navy, construction and machinery				226,830.00	
Total Balch				226,830.00	226,830.00
Beale:					
Increase Navy, construction and machinery				438,180.00	
Electric plant			188.60		
			188.60	438,180.00	
Increase Navy, equipment—					
Hull and fittings	1.22	.26	11.45		
Total Beale	1.22	.26	200.05	438,180.00	438,381.53
Benham:					
Increase Navy, construction and machinery				226,830.00	
Total Benham				226,830.00	226,830.00

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Burrows:					
Increase Navy, construction and machinery				$19,976.00	
Hull and fittings	$3,087.00	$953.67	$1,250.99		
Engines	150.42	61.33	39.81		
Auxiliary machinery	83 82	13.88	90.99		
Electric plant	19.76	4.46	15.70		
Miscellaneous	352.75	88.86	310.45		
	3,593.75	1,122.20	1,707.94	19,976.00	
Increase Navy, equipment—					
Wireless telegraphy	340.94	80.00	1,368.82		
Electric plant	24.58	5.84	6.15		
	365.52	85.84	1,374.97		
Total Burrows	3,959.27	1,208.04	3,082.91	19,976.00	$28,226.22
Cassin:					
Increase Navy, construction and machinery				228,450.00	
Total Cassin				228,450.00	228,450.00
Cummings:					
Increase Navy, construction and machinery				190,375.00	
Total Cummings				190,375.00	190,375.00
Cyclops:					
Increase Navy, colliers				4,390.96	
Hull and fittings	4,624.60	1,592.03	1,920.31		
Auxiliary machinery	910.25	382.01	1,908.96		
Boilers	32.36	14.56	3.53		
Standing rigging	168.62	106.68	24.60		
Interior communication	156.08	47.35	155.56		
	5,891.91	2,142.61	4,012.96	4,390.96	
Increase Navy, purchase of steam colliers—					
Auxiliary machinery	*23.16*	*16.27*	*6.14*		
Total Cyclops	5,868.75	2,126.34	4,006.82	4,390.96	16,392.87
Delaware:					
Increase Navy, construction and machinery				16,086.05	
Hull and fittings	60.24	50.62	424.58		
Auxiliary machinery	1,223.54	287.95	817.67		
Electric plant	599.52	131.63	477.28		
Miscellaneous	1,754.45	543.27	523.21		
	3,637.75	1,013.47	2,242.74	16,086.05	
Increase Navy, armor and armament				1,454.39	
Permanent ordnance fittings	228.28	63.17			
	228.28	63.17		1,454.39	
Total Delaware	3,866.03	1,076.64	2,242.74	17,540 44	24,725.85
Downes:					
Increase Navy, construction and machinery				38,875.00	
Total Downes				38,875.00	38,875.00
Drayton:					
Increase Navy, construction and machinery				2,051.34	
Hull and fittings	205,94	64.63	33.30		
Engines	68.04	36.86	1.89		
Electric plant	21.92	6.05	17.88		
Miscellaneous	81.03	18.33	78.67		
	376.93	125.87	131.74	2,051.34	

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Drayton—Continued.					
Increase Navy, equipment—					
Electric plant	$93.22	$22.98	$50.11	...	
Total Drayton	470.15	148.85	181.85	$2,051.34	$2,852.19
Duncan:					
Increase Navy, construction and machinery	...	...	...	233,835.00	
Total Duncan	...	...	...	233,835.00	233,835.00
Fanning:					
Increase Navy, construction and machinery	...	...	...	462,280.50	
Electric plant	...	...	188.60	...	
	...	...	188.60	462,280.50	
Increase Navy, equipment—					
Hull and fittings	...	...	9.80	...	
Increase Navy, armor and armament—					
Permanent ordnance fittings	21.12	10.56	...	...	
Total Fanning	21.12	10.56	198.40	462,280.50	462,510.58
Florida:					
Increase Navy, construction and machinery	...	...	...	10,990.68	
Permanent ordnance fittings	7,054.10	2,657.16	223.59	...	
Hull and fittings	138,395.36	42,434.37	62,722.62	...	
Engines	14,154.63	4,568.35	5,660.91	...	
Boilers	5,444.38	1,825.00	253,197.23	...	
Auxiliary machinery	5,622.44	1,773.49	5,633.08	...	
Electric plant	20,783.97	4,603.07	83,544.55	...	
Interior communication	20,108.42	4,449.59	8,161.00	...	
Miscellaneous	52,784.84	15,265.40	34,472.21	...	
	264,348.14	77,576.43	453,615.19	10,990.68	
Increase Navy, equipment—					
Wireless telegraphy	468.66	108.12	2,443.18	...	
Electric plant	3,975.80	944.37	22,094.58	...	
Interior communication	521.83	169.08	8,317.22	...	
Miscellaneous	142.30	59.90	2,255.23	...	
	5,108.59	1,281.47	35,110.21	...	
Increase Navy, armor and armament	...	...	...	15,712.52	
Permanent ordnance fittings	2,725.74	1,001.79	20,905.43	...	
Miscellaneous	73.44	18.93	...	...	
	2,799.18	1,020.72	20,905.43	15,712.52	
Total Florida	272,255.91	79,878.62	509,630.83	26,703.20	888,468.56
Hector:					
Increase Navy, construction and machinery	...	...	...	...	
Wireless telegraphy	87.34	43.74	27.11	...	
Increase Navy, purchase of steam colliers—					
Hull and fittings	...	...	8.87	...	
Engines	37.36	18.68	...	...	
Auxiliary machinery	55.20	27.60	4.12	...	
Standing rigging	236.63	122.23	405.76	...	
Wireless telegraphy	40.53	11.66	35.12	...	
	369.72	180.17	436.13	...	
Total Hector	457.06	223.91	463.24	...	1,144.21

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Henley:					
Increase Navy, construction and machinery				$485,920.50	
Increase Navy, equipment—					
Permanent ordnance fittings			$24.75		
Hull and fittings	$1.76	$1.24	5.80		
	1.76	1.24	30.55		
Increase Navy, armor and armament					
Permanent ordnance fittings	76.12	35.16	8.59		
Total Henley	77.88	36.40	39.14	485,920.50	$486,073.92
Jarvis:					
Increase Navy, construction and machinery				454,400.00	
Hull and fittings	22.62	10.67	5.85		
Electric plant			188.60		
	22.62	10.67	194.45	454,400.00	
Increase Navy, equipment—					
Miscellaneous			11.52		
Total Jarvis	22.62	10.67	205.97	454,400.00	454,639.26
Jason:					
Increase Navy, construction and machinery				427,950.00	
Increase Navy, equipment—					
Miscellaneous			1,061.31		
Total Jason			1,061.31	427,950.00	429,011.31
Jenkins:					
Increase Navy, construction and machinery				399,946.65	
Hull and fittings	445.06	245.41	70.28		
Interior communication			384.42		
	445.06	245.41	454.70	399,946.65	
Increase Navy, equipment—					
Permanent ordnance fittings	75.02	31.29	27.77		
Hull and fittings	2.20	1.54	10.06		
Electric plant	1.40	.56	5.46		
	78.62	33.39	43.29		
Increase Navy, armor and armament—					
Permanent ordnance fittings	371.11	180.92	13.32		
Total Jenkins	849.79	459.72	511.31	399,946.65	401,812.47
Jouett:					
Increase Navy, construction and machinery				370,560.31	
Hull and fittings	414.68	236.45	184.02		
Interior communication			384.42		
	414.68	236.45	568.44	370,560.31	
Increase Navy, equipment—					
Permanent ordnance fittings	49.78	20.45	33.64		
Hull and fittings	2.64	1.86	10.06		
Electric plant	7.88	3.15	5.46		
	60.30	25.46	49.16		

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Jouett—Continued.					
Increase Navy, armor and armament—					
Permament ordnance fittings	$647.39	$317.35	$21.66	...	
Total Jouett	1,122.37	579.26	639.26	$370,560.31	$372,901.20
Jupiter:					
Increase Navy, colliers—					
Hull and fittings	155,681.91	72,067.90	228,249.25	...	
Engines	10,117.45	5,875.51	13,690.93	...	
Boilers	26,456.97	16,150.77	37,126.57	...	
Auxiliary machinery	2,523.98	1,257.35	1,900.29	...	
Electric plant	249.10	99.93	444.88	...	
Miscellaneous	24,089.77	8,443.81	3,849.69	...	
Total Jupiter	219,119.18	103,895.27	285,261.61	...	608,276.06
Mars:					
Increase Navy, purchase of steam colliers—					
Hull and fittings	1,054.58	639.56	31.70	...	
Engines	32.80	16.40	...	...	
Auxiliary machinery	30.36	15.44	6.05	...	
Standing rigging	278.73	137.06	549.05	...	
Wireless telegraphy	172.50	58.59	111.04	...	
Total Mars	1,568.97	867.05	697.84	...	3,133.86
Mayrant:					
Increase Navy, construction and machinery	...	...	...	61,890.79	
Hull and fittings	3,387.62	1,215.27	1,117.08	...	
Engines	94.11	51.58	2.71	...	
Auxiliary machinery	45.76	9.49	1.30	...	
Standing rigging	2.52	1.51	...	...	
Electric plant	11.56	2.57	1.25	...	
Miscellaneous	323.94	93.82	141.23	...	
	3,865.51	1,374.24	1,263.57	61,890.79	
Increase Navy, equipment—					
Standing rigging	4.40	2.53	10.36	...	
Wireless telegraphy	267.55	63.93	1,506.69	...	
Electric plant	382.73	134.13	217.48	...	
Interior communication	12.48	3.12	...	...	
Miscellaneous	4.20	2.10	123.18	...	
	671.36	205.81	1,857.71	...	
Increase Navy, armor and armament—					
Permanent ordnance fittings	233.24	163.27	...	...	
Total Mayrant	4,770.11	1,743.32	3,121.28	61,890.79	71,525.50
McCall:					
Increase Navy, construction and machinery	...	...	...	23,587.00	
Hull and fittings	2,885.78	873.80	1,272.58	...	
Engines	138.14	78.13	2.96	...	
Wireless telegraphy	2.00	.50	...	...	
Electric plant	249.01	56.34	156.44	...	
Interior communication	426.89	113.33	186.65	...	
Miscellaneous	405.44	110.42	285.21	...	
	4,107.26	1,232.52	1,903.84	23,587.00	
Increase Navy, equipment—					
Wireless telegraphy	317.87	72.05	1,355.21	...	
Electric plant	98.97	27.02	28.19	...	
	416.84	99.07	1,383.40	...	
Total McCall	4,524.10	1,331.59	3,287.24	23,587.00	32,729.93
Michigan:					
Increase Navy, construction and machinery	...	...	...	3,675.00	
Hull and fittings	880.49	386.52	814.94	...	
Miscellaneous	*549.24*	*189.59*	*23,963.63*	...	
	331.25	196.93	*23,648.69*	3,675.00	

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Michigan—Continued.					
Increase Navy, armor and armament—					
Permanent ordnance fittings	$5,355.52	$2,219.24	$1,274.24		
Total Michigan	5,686.77	2,416.17	$2,374.45	$3,675.00	$10,596.51
Monaghan:					
Increase Navy, construction and machinery				62,528.60	
Hull and fittings	922.97	457.38	557.96		
Engines	8.80	1.76			
Boilers	1,189.73	350.20	180.38		
Electric plant	8.80	2.10	9.13		
Miscellaneous	1,670.78	668.46	994.70		
	3,801.08	1,479.90	1,742.17	62,528.60	
Increase Navy, equipment—					
Wireless telegraphy	192.22	74.16	140.96		
Electric plant	15.76	3.15	22.18		
Miscellaneous	35.84	21.50	10.18		
	243.82	98.81	173.32		
Increase Navy, armor and armament—					
Permanent ordnance fittings	77.84	28.60	17.89		
Hull and fittings	8.58	3.42			
	86.42	32.02	17.89		
Total Monaghan	4,131.32	1,610.73	1,933.38	62,528.60	70,204.03
Neptune:					
Increase Navy, construction and machinery				42,256.00	
Hull and fittings	4,334.51	1,906.26	1,676.75		
Engines	379.10	189.19	48.44		
Boilers	201.40	90.66	22.73		
Auxiliary machinery	751.91	371.28	204.15		
Electric plant	293.63	114.32	207.06		
Interior communication	135.88	41.12	114.95		
Miscellaneous	237.69	85.82	188.52		
	6,334.12	2,798.65	2,462.60	42,256.00	
Increase Navy, equipment—					
Wireless telegraphy	152.26	76.11	46.32		
Total Neptune	6,486.38	2,874.76	2,508.92	42,256.00	54,126.06
Nereus:					
Increase Navy, construction and machinery				445,500.00	
Total Nereus				445,500.00	445,500.00
Nevada:					
Increase Navy, construction and machinery				117,900.00	
Increase Navy, armor and armament—					
Permanent ordnance fittings	21,380.90	7,250.87	37,209.83		
Total Nevada	21,380.90	7,250.87	37,209.83	117,900.00	183,741.60
New Jersey:					
Increase Navy, construction and machinery				19,436.53	
Total New Jersey				19,436.53	19,436.53
New York:					
Increase Navy, construction and machinery				468.04	
Permanent ordnance fittings	111.66	31.84			
Hull and fittings	414,473.50	149,202.08	815,838.84		
Engines	124,666.24	42,920.92	242,078.04		

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
New York—Continued.					
Increase Navy, boilers	$5,826.03	$2,325.51	$5,734.17		
Auxiliary machinery	16,434.58	6,332.58	12,242.81		
Miscellaneous	95,853.23	26,682.86	55,230.63		
Electric plant	2,452.03	770.68	10,857.04		
Interior communication	674.41	215.93	812.80		
	660,491.68	228,482.40	1,142,794.33	$468.04	
Increase Navy, armor and armament				1,763,742.48	
Permanent ordnance fittings	111,784.15	33,020.33	41,948.63		
	111,784.15	33,020.33	41,948.63	1,763,742.48	
Total New York	772,275.83	261,502.73	1,184,742.96	1,764,210.52	$3,982,732.04
North Dakota:					
Increase Navy, construction and machinery				29,725.16	
Hull and fittings	280.79	102.65	414.74		
Engines	21.72	8.69	5.88		
Boilers	2,916.52	787.87	474.59		
Auxiliary machinery	156.08	49.44			
Electric plant	479.93	96.42	50.00		
	3,855.04	1,045.07	945.21	29,725.16	
Increase Navy, equipment—Interior communication			8,126.80		
Increase Navy, armor and armament				1,740.25	
Total North Dakota	3,855.04	1,045.07	9,072.01	31,465.41	45,437.53
Oklahoma:					
Increase Navy, armor and armament				471,876.58	
Permanent ordnance fittings	21,380.87	7,250.92	37,209.80		
Total Oklahoma	21,380.87	7,250.92	37,209.80	471,876.58	537,718.17
Ontario:					
Increase Navy, construction and machinery				139,680.00	
Total Ontario				139,680.00	139,680.00
Orion:					
Increase Navy, construction and machinery				855,900.00	
Increase Navy, equipment—Miscellaneous			1,440.07		
Total Orion			1,440.07	855,900.00	857,340.07
Parker:					
Increase Navy, construction and machinery				264,635.00	
Total Parker				264,635.00	264,635.00
Patterson:					
Increase Navy, construction and machinery				154,365.00	
Hull and fittings	639.85	238.04	578.57		
Auxiliary machinery	72.99	31.84	54.94		
Wireless telegraphy	59.00	24.64	19.64		
Miscellaneous	35.10	11.02	12.39		
	806.94	305.54	665.54	154,365.00	
Increase Navy, equipment—					
Electric plant	8.16	3.76	10.31		
Miscellaneous	22.28	10.31	126.00		
	30.44	14.07	136.31		
Increase Navy, armor and Armament—Permanent Ordnance fittings	232.10	116.05	.70		
Total Patterson	1,069.48	435.66	802.55	154,365.00	156,672.69

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Paulding:					
Increase Navy, construction and machinery				$1,906.70	
Hull and fittings	$1,777.23	$525.97	$565.65		
Engines	85.22	47.18	2.37		
Auxiliary machinery	1,139.49	285.17	497.44		
Electric plant	22.44	5.63	15.78		
Miscellaneous	98.42	24.09	51.68		
	3,122.80	888.04	1,132.92	1,906.70	
Increase Navy, equipment—Electric plant	111.07	30.84	36.51		
Total Paulding	3,233.87	918.88	1,169.43	1,906.70	$7,228.88
Perkins:					
Increase Navy, construction and machinery				21,250.00	
Hull and fittings	857.85	248.37	306.14		
Boilers	616.39	163.44	36.08		
Auxiliary machinery	751.46	174.52	54.19		
Electric plant	48.76	11.01	11.73		
Miscellaneous	427.19	100.28	243.31		
	2,701.65	697.62	651.45	21,250.00	
Increase Navy, equipment—Electric plant	78.06	24.09	25.92		
Total Perkins	2,779.71	721.71	677.37	21,250.00	25,428.79
Proteus:					
Increase Navy, construction and machinery				495,000.00	
Total Proteus				495,000.00	495,000.00
Rhode Island:					
Increase Navy, construction and machinery				16,505.69	
Total Rhode Island				16,505.69	16,505.69
Roe:					
Increase Navy, construction and machinery				1,830.00	
Hull and fittings	2,834.53	753.79	652.45		
Engines	653.44	210.22	144.76		
Boilers	1,277.04	411.82	190.03		
Auxiliary machinery	269.67	66.69	445.81		
Electric plant	59.24	12.36	48.69		
Miscellaneous	1,249.75	328.37	658.93		
	6,343.67	1,783.25	2,140.67	1,830.00	
Increase, Navy, equipment—					
Electric plant	146.52	34.45	*1,698.40*		
Interior communication	21.76	5.44			
	168.28	39.89	*1,698.40*		
Total Roe	6,511.95	1,823.14	442.27	1,830.00	10,607.36
Smith:					
Increase Navy, construction and machinery				510.98	
Total Smith				510.98	510.98
Sonoma:					
Increase Navy, construction and machinery				139,680.00	
Total Sonoma				139,680.00	139,680.00

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
South Carolina:					
Increase Navy, construction and machinery—					
Hull and fittings	$26.21	$7.86			
Increase Navy, equipment—					
Interior communication	5.28	1.59	$292.08		
Increase Navy, armor and armament				$55.89	
Total South Carolina	31.49	9.45	292.08	55.89	$388.91
Sterett:					
Increase Navy, construction and machinery				20,165.00	
Hull and fittings	1,137.26	365.64	579.74		
Auxiliary machinery	486.21	217.86	578.01		
Electric plant	217.68	53.25	95.16		
Miscellaneous	196.73	51.06	134.73		
	2,397.88	687.81	1,387.64	20,165.00	
Increase Navy, equipment—					
Wireless telegraphy	359.96	80.66	1,430.72		
Electric plant	58.46	19.47	30.69		
Interior communication	21.08	4.69			
	439.50	104.82	1,461.41		
Total Sterett	2,837.38	792.63	2,849.05	20,165.00	26,644.06
Submarines.					
B–2:					
Increase Navy, equipment—					
Miscellaneous			2,000.00		
Total B–2			2,000.00		2,000.00
D–3:					
Increase Navy, torpedo boats				1,541.58	
Total D–3				1,541.58	1,541.58
E–1:					
Increase Navy, construction and machinery—					
Interior communication	11.76	4.12	118.57		
Miscellaneous	51.61	22.98	10.62		
	63.37	27.10	129.19		
Increase Navy, torpedo boats				54,883.00	
Hull and fittings	66.84	39.87	34.69		
	66.84	39.87	34.69	54,883.00	
Total E–1	130.21	66.97	163.88	54,883.00	55,244.06
E–2:					
Increase Navy, construction and machinery—					
Engines	8.80	4.53	2.50		
Interior communication	29.92	9.65	117.26		
Miscellaneous	108.01	44.81	9.52		
	146.73	58.99	129.28		
Increase Navy, equipment—					
Interior communication			8,125.00		
Increase Navy, torpedo boats				88,933.00	
Hull and fittings	85.18	49.68	33.54		
	85.18	49.68	33.54	88,933.00	
Total E–2	231.91	108.67	8,287.82	88,933.00	97,561.40
F–1:					
Increase Navy, torpedo boats				40,926.60	
Total F–1				40,926.60	40,926.60

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels* (*Title A*) *showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
F-2:					
Increase Navy, torpedo boats				$37,064.00	
Total F-2				37,064.00	$37,064.00
F-3:					
Increase Navy, torpedo boats				70,643.20	
Total F-3				70,643.20	70,643.20
F-4:					
Increase Navy, torpedo boats				58,743.20	
Total F-4				58,743.20	58,743.20
G-2:					
Increase Navy, torpedo boats				69,700.00	
Total G-2				69,700.00	69,700.00
G-3:					
Increase Navy, torpedo boats				118,300.00	
Total G-3				118,300.00	118,300.00
G-4:					
Increase Navy, equipment—Miscellaneous			$235.00		
Increase Navy, torpedo boats				148,750.00	
Total G-4			235.00	148,750.00	148,985.00
H-1:					
Increase Navy, torpedo boats				255,320.00	
Total H-1				255,320.00	255,320.00
H-2:					
Increase Navy, torpedo boats				255,320.00	
Total H-2				255,320.00	255,320.00
H-3:					
Increase Navy, torpedo boats				230,770.00	
Total H-3				230,770.00	230,770.00
K-1:					
Increase Navy, torpedo boats				140,700.00	
Total K-1				140,700.00	140,700.00
K-2:					
Increase Navy, torpedo boats				140,700.00	
Total K-2				140,700.00	140,700.00
K-3:					
Increase Navy, torpedo boats				150,300.00	
Total K-3				150,300.00	150,300.00
K-4:					
Increase Navy, torpedo boats				125,250.00	
Total K-4				125,250.00	125,250.00
K-5:					
Increase Navy, torpedo boats				23,900.00	
Total K-5				23,900.00	23,900.00
K-6:					
Increase Navy, torpedo boats				23,900.00	
Total K-6				23,900.00	23,900.00
K-7:					
Increase Navy, torpedo boats				51,200.00	
Total K-7				51,200.00	51,200.00

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
K-8:					
Increase Navy, torpedo boats	...	...	...	$51,200.00	...
Total K-8	...	...	...	51,200.00	$51,200.00
Terry:					
Increase Navy, construction and machinery	...	...	...	2,100.00	
Hull and fittings	$1,401.15	$406.57	$623.02	...	
Boilers	429.20	159.87	146.58	...	
Auxiliary machinery	149.18	53.98	164.05	...	
Electric plant	150.84	34.33	108.59	...	
Miscellaneous	1,133.10	310.91	961.63	...	
	3,263.47	965.66	2,003.87	2,100.00	
Increase Navy, equipment—					
Wireless telegraphy	35.08	7.13	2.55	...	
Electric plant	68.59	15.99	57.05	...	
Interior communication	28.72	7.18	...	...	
	132.39	30.30	59.60	...	
Total Terry	3,395.86	995.96	2,063.47	2,100.00	8,555.29
Texas:					
Increase Navy, construction and machinery	...	...	...	3,113,701.00	
Increase Navy, armor and armament	...	...	...	1,606,374.66	
Permanent ordnance fittings	111,676.61	33,005.09	41,948.63	...	
	111,676.61	33,005.09	41,948.63	1,606,374.66	
Total Texas	111,676.61	33,005.09	41,948.63	4,720,075.66	4,906,705.99
Trippe:					
Increase Navy, construction and machinery	...	...	...	11,120.00	
Hull and fittings	1,870.23	933.28	579.06	...	
Auxiliary machinery	325.17	152.07	914.74	...	
Wireless telegraphy	46.38	17.18	29.83	...	
Miscellaneous	223.86	88.75	836.20	...	
	2,465.64	1,191.28	2,359.83	11,120.00	
Total Trippe	2,465.64	1,191.28	2,359.83	11,120.00	17,136.75
Utah:					
Increase Navy, construction and machinery	...	...	...	274,263.35	
Hull and fittings	29,759.04	11,468.57	9,962.95	...	
Engines	1,137.85	480.78	252.84	...	
Boilers	667.40	195.04	112.57	...	
Auxiliary machinery	1,513.31	609.32	1,344.41	...	
Electric plant	375.06	93.36	163.82	...	
Interior communication	1,024.60	263.31	723.41	...	
Miscellaneous	4,318.02	1,325.08	2,274.26	...	
	38,795.28	14,435.46	14,834.26	274,263.35	
Increase Navy, equipment—					
Wireless telegraphy	614.88	140.37	2,540.57	...	
Electric plant	4,277.26	1,034.18	18,966.12	...	
Interior communication	2,189.32	467.32	9,095.92	...	
Miscellaneous	484.32	175.61	3,641.11	...	
	7,565.78	1,817.48	34,243.72	...	
Increase Navy, armor and armament	...	...	...	115,297.26	
Permanent ordnance fittings	5,151.21	1,954.21	17,614.10	...	
	5,151.21	1,954.21	17,614.10	115,297.26	
Total Utah	51,512.27	18,207.15	66,692.08	389,560.61	525,972.11

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Vulcan:					
Increase Navy, purchase of steam colliers—					
Boilers	$63.84	$31.92	$6.53	...	
Auxiliary machinery	33.32	16.66	14.69	...	
Standing rigging	29.90	7.59	338.99	...	
Wireless telegraphy	153.53	51.54	136.97	...	
Total Vulcan	280.59	107.71	497.18	...	$885.
Walke:					
Increase Navy, construction and machinery	...	...	...	$60,660.52	
Hull and fittings	1,848.61	973.74	605.60	...	
Boilers	225.33	95.26	90.74	...	
Auxiliary machinery	321.76	124.12	1,076.85	...	
Wireless telegraphy	75.02	27.95	55.08	...	
Interior communication	189.51	66.42	74.48	...	
Miscellaneous	631.34	277.78	550.64	...	
	3,291.57	1,565.27	2,453.39	60,660.52	
Increase Navy, equipment—					
Wireless telegraphy	79.94	17.34	76.26	...	
Electric plant	190.19	66.98	42.06	...	
	270.13	84.32	118.32	...	
Increase Navy, armor and armament—					
Permanent ordnance fittings	739.33	283.03	54.66	...	
Total Walke	4,301.03	1,932.62	2,626.37	60,660.52	69,520.
Warrington:					
Increase Navy, construction and machinery	...	...	...	23,472.67	
Hull and fittings	2,269.95	687.21	859.09	...	
Engines	88.43	47.30	1.70	...	
Boilers	115.52	51.79	2.32	...	
Auxiliary machinery	113.67	25.12	9.22	...	
Electric plant	1.44	.29	1.25	...	
Miscellaneous	171.48	42.89	69.77	...	
	2,760.49	854.60	943.35	23,472.67	
Increase Navy, equipment—					
Wireless telegraphy	318.71	71.62	1,239.49	...	
Electric plant	4.83	1.47	252.97	...	
	323.54	73.09	1,492.46	...	
Total Warrington	3,084.03	927.69	2,435.81	23,472.67	29,920.
Wyoming:					
Increase Navy, construction and machinery	...	...	...	1,460,722.25	
Hull and fittings	168.14	115.77	46.57	...	
Electric plant	...	...	528.18	...	
Miscellaneous	...	...	892.00	...	
	168.14	115.77	1,466.75	1,460,722.25	
Increase Navy, equipment—					
Hull and fittings	14.12	4.99	124.70	...	
Miscellaneous	...	...	18,990.00	...	
	14.12	4.99	19,114.70	...	
Increase Navy, armor and armament	...	...	...	125,183.19	
Permanent ordnance fittings	25,726.06	6,821.90	28,775.50	...	
	25,726.06	6,821.90	28,775.50	125,183.19	
Total Wyoming	25,908.32	6,942.66	49,356.95	1,585,905.44	1,668,11

STATEMENT B—Continued.

TABLE 3.—*Expenditures for the construction of new vessels (Title A) showing the appropriations concerned with such expenditures*—Continued.

RECAPITULATION OF EXPENDITURES BY APPROPRIATIONS.

Vessels and appropriations.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Increase Navy, construction and machinery				$14,045,144.91	$14,045,144.91
Hull and fittings	$615,228.38	$215,251.73	$901,838.41		1,732,313.52
Permanent ordnance fittings	7,165.76	2,689.00	223.59		10,078.35
Engines	141,654.94	48,706.82	248,244.81		438,606.57
Boilers	18,908.94	6,456.46	260,187.42		285,552.82
Auxiliary machinery	30,120.85	10,719.97	25,419.59		66,260.41
Standing rigging	2.52	1.51			4.03
Wireless telegraphy	285.08	119.27	131.86		536.21
Electric plant	25,795.59	5,997.87	97,403.51		129,196.97
Interior communication	22,755.96	5,217.18	11,135.41		39,108.55
Miscellaneous	161,597.26	46,007.30	75,869.20		283,473.76
	1,023,510.28	341,167.11	1,620,453.80	14,045,144.91	17,030,276.10
Increase Navy, equipment—					
Hull and fittings	73.96	30.43	298.75		403.14
Permanent ordnance fittings	124.80	51.74	86.16		262.70
Standing rigging	4.40	2.53	10.36		17.29
Wireless telegraphy	3,148.07	791.49	12,143.77		16,083.33
Electric plant	9,543.48	2,372.43	40,152.84		52,068.75
Interior communication	2,800.47	658.42	33,957.02		37,415.91
Miscellaneous	688.94	269.42	48,915.54		49,873.90
	16,384.12	4,176.46	135,564.44		156,125.02
Increase Navy, armor and armament				4,286,091.00	4,286,091.00
Hull and fittings	15.93	5.26			21.19
Permanent ordnance fittings	333,533.60	100,544.36	255,778.48		689,856.44
Miscellaneous	73.44	18.93			92.37
	333,622.97	100,568.55	255,778.48	4,286,091.00	4,976,061.00
Increase Navy, torpedo boats				2,138,044.58	2,138,044.58
Hull and fittings	152.02	89.55	68.23		309.80
	152.02	89.55	68.23	2,138,044.58	2,138,354.38
Increase Navy, colliers				4,390.96	4,390.96
Hull and fittings	160,306.51	73,659.91	230,169.56		464,135.98
Engines	10 117.45	5,875.51	13,690.93		29,683.89
Boilers	26,489.33	16,165.33	37,130.10		79,784.76
Auxiliary machinery	3,434.23	1,639.36	3,809.25		8,882.84
Standing rigging	168.62	106.68	24.60		299.90
Electric plant	249.10	99.93	444.88		793.91
Interior communication	156.08	47.35	155.56		358.99
Miscellaneous	24,089.77	8,443.81	3,849.69		36,383.27
	225,011.09	106,037.88	289,274.57	4,390.96	624,714.50
Increase Navy, purchase of steam colliers—					
Hull and fittings	1,054.58	639.56	22.83		1,716.97
Engines	70.16	35.08			105.24
Boilers	63.84	31.92	6.53		102.29
Auxiliary machinery	95.72	43.43	18.72		157.87
Standing rigging	545.26	266.88	1,293.80		2,105.94
Wireless telegraphy	366.56	121.79	283.13		771.48
	2,196.12	1,138.66	1,625.01		4,959.79
Total Title A	1,600,876.60	553,178.21	2,302,764.53	20,473,671.45	24,930,490.79

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged.*

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Abarenda:											
Equipment of vessels (S. E.)	$51.50	$18.08	$2.80								$72.38
Construction and repair	235.54	112.36	591.65								939.50
Steam machinery	197.65	74.94	459.56	$196.02	$159.73	$225.30					1,313.20
Total	484.69	205.38	1,054.01	196.02	159.73	225.30					2,325.13
Accomac:											
Equipment of vessels (S. E.)						2.52					2.52
Construction and repair	583.76	123.07	164.29				$30.80		$1.38		903.30
Steam machinery	411.31	66.29	129.16	116.12	58.22	198.91					980.01
Total	995.07	189.36	293.45	116.12	58.22	201.43	30.80		1.38		1,885.83
Active:											
Construction and repair	353.65	136.02	200.12								689.79
Steam machinery	1,733.32	971.97	268.63	24.62	11.08	.66					3,010.28
Total	2,086.97	1,107.99	468.75	24.62	11.08	.66					3,700.07
Adams:											
Equipment of vessels (C. & R.)	690.06	342.74	520.43								1,553.23
Equipment of vessels (S. E.)	74.40	15.61	17.57								107.58
Construction and repair	2,196.19	620.95	1,253.27								4,070.41
Steam machinery	926.34	284.80	499.97								1,711.11
Total	3,886.99	1,264.10	2,291.24								7,442.33
Aileen:											
Construction and repair				67.17	32.52	5.68				$717.73	823.10
Steam machinery										214.11	214.11
Total				67.17	32.52	5.68				931.84	1,037.21

Ajax:										
Equipment of vessels (C. & R.)	24.45	12.82	4.01							41.28
Equipment of vessels (S. E.)	570.26	182.46	194.67	308.00	75.29	257.51				1,588.19
Construction and repair	3,608.74	1,325.89	846.48	841.10	239.58	298.29	15.60	5.20		7,180.88
Steam machinery	2,784.96	975.03	947.92	1,144.96	493.24	1,251.87				7,597.98
Total	6,988.41	2,496.20	1,993.08	2,294.06	808.11	1,807.67	15.60	5.20		16,408.33
Alabama:										
Equipment of vessels (Nav.)				*.68*	*.14*					*.82*
Equipment of vessels (C. & R.)	723.69	231.04	897.15	401.32	99.58	2,687.69				5,040.47
Equipment of vessels (S. E.)	23,864.01	5,326.50	15,433.31	15,773.16	3,496.32	15,135.03	3,985.71	887.90	1,999.32	85,901.26
Ordnance and ordnance stores	6,401.93	2,936.34	2,985.65	6,434.67	2,457.13	651.85			27.50	21,895.07
Modernizing turrets				3,815.42	1,176.79	1,962.40				6,954.61
Construction and repair	90,099.09	25,410.29	21,123.81	84,796.58	29,214.18	34,806.92	2,518.58	712.96	282.51	288,964.87
Steam machinery	47,362.12	12,806.41	8,131.14	6,723.43	1,590.01	2,620.92	419.71	85.11	48.77	3,100.00	82,887.62
Equipment of vessels (S. E.), 1910			*346.30*							*346.30*
Equipment of vessels (C. & R.), 1911			*475.81*							*475.81*
Equipment of vessels (S. E.), 1911			*86.34*			*83.45*				*169.79*
Ordnance and ordnance stores, 1911			*17.60*							*17.60*
Construction and repair, 1911			*2.00*			*222.48*				*224.48*
Steam machinery, 1911			*359.43*			*362.65*				*722.08*
Total	168,450.84	46,710.58	47,283.58	117,943.90	38,083.82	57,196.29	6,924.00	1,685.97	2,330.60	3,127.50	489,687.08
Albany:										
Construction and repair	977.49	408.84	1,272.63	29.48	15.10	5.59				199.06	2,908.19
Steam machinery	1,240.20	745.67	5,269.19							52.42	7,307.48
Total	2,217.69	1,154.51	6,541.82	29.48	15.10	5.59				251.48	10,215.67
Alert:										
Equipment of vessels (C. & R.)	82.48	35.84	842.99	29.13	21.11	19.91					1,031.46
Equipment of vessels (S. E.)	235.17	102.94	103.47	1,428.06	784.10	11,950.64					14,604.38
Ordnance and ordnance stores	515.69	292.18	116.67	52.32	23.54						1,000.40
Construction and repair	802.50	397.39	1,267.26	6,541.19	2,762.34	2,875.43					14,646.11
Steam machinery	4,265.36	2,241.29	1,244.46	3,506.80	1,704.34	5,589.77					18,552.02
Total	5,901.20	3,069.64	3,574.85	11,557.50	5,295.43	20,435.75					49,834.37
Alexander:											
Equipment of vessels (C. & R.)	35.02	14.00	34.17								83.19
Equipment of vessels (S. E.)	13.48	10.11	.74			45.19					69.52
Construction and repair	7,401.64	4,691.59	2,777.41	158.08	96.45	50.41					15,175.58
Steam machinery	1,559.41	956.75	524.57								3,040.73
Total	9,009.55	5,672.45	3,336.89	158.09	96.45	95.60					18,369.02

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Alice:											
Construction and repair	$651.48	$213.74	$137.95								$1,008.17
Steam machinery	599.69	295.25	124.49								1,019.43
Total	1,251.17	508.99	262.44								2,022.60
Ammen:											
Equipment of vessels (C. & R.)							$86.52	$22.68	$44.01		153.21
Equipment of vessels (S. E.)	229.17	76.70	46.01	$316.39	$138.37	$348.99	148.32	35.33	47.69		1,386.97
Construction and repair	1,228.58	649.03	486.37	104.95	57.42	8.27	1,512.13	550.71	243.64		4,841.10
Steam machinery, 1912	617.46	307.53	735.31	987.98	531.91	297.48	122.02	31.62	11.82		3,643.13
Steam machinery, 1911			*15.99*								*15.99*
Total	2,075.21	1,033.26	1,251.70	1,409.32	727.70	654.74	1,868.99	640.34	347.16		10,008.42
Amphitrite:											
Steam machinery	35.81	16.11	569.32								621.24
Annapolis:											
Equipment of vessels (C. & R.)	1,319.48	588.51	530.90								2,438.89
Equipment of vessels (S. E)	1,022.88	645.37	559.23	396.80	267.47	164.67					3,056.42
Construction and repair	17,778.93	8,840.70	7,865.85	2,402.00	1,352.20	1,000.26	5.79	2.30			39,248.03
Steam machinery	6,451.15	4,258.19	1,444.76	923.84	626.63	2,316.14					16,020.71
Total	26,572.44	14,332.77	10,400.74	3,722.64	2,246.30	3,481.07	5.79	2.30			60,764.05
Apache:											
Equipment of vessels (S. E.)	10.36	2.07									12.43
Construction and repair	477.46	135.75	161.13	153.85	47.24	62.03					1,087.46
Steam machinery	617.30	153.22	494.47				2,467.65	712.95	206.13		4,651.72
Total	1,105.12	291.04	655.60	153.85	47.24	62.03	2,467.65	712.95	206.13		5,701.61
Arethusa:											
Construction and repair	1,710.17	499.40	761.07	193.35	78.72	58.42					3,301.13
Steam machinery	63.12	31.56	26.29	116.16	59.24	393.51					689.88
Total	1,773.29	530.96	787.36	309.51	137.96	451.93					3,991.01

Atlanta:											
Construction and repair	909.31	336.91	454.72	1,462.17	622.73	701.01					4,486.85
Bagley:											
Equipment of vessels (S. E.)	1.34	.27									1.61
Construction and repair	364.81	116.52	66.33			3.85	346.93	112.67	28.85		1,039.96
Steam machinery	204.83	89.78	38.58								423.19
Total	660.98	206.57	104.91			3.85	346.93	112.67	28.85		1,464.76
Bailey:											
Equipment of vessels (C. & R.)	41.76	20.88	5.76			174.12					242.52
Equipment of vessels (S. E.)	6.56	3.28		365.54	84.28	469.29					928.95
Construction and repair	596.67	300.94	311.95				158.80	54.10	18.79		1,441.25
Steam machinery	375.45	215.70	37.71	17.28	8.60	12.99					667.73
Total	1,020.44	540.80	355.42	382.82	92.88	656.40	158.80	54.10	18.79		3,280.45
Bainbridge:											
Equipment of vessels (C. & R.)	16.24	5.87	2.70								24.81
Equipment of vessels (S. E.)	6.32	3.15									9.47
Construction and repair	368.07	150.54	515.88								1,034.49
Steam machinery	888.98	439.23	7,798.62								9,126.83
Total	1,279.61	598.79	8,317.20								10,195.60
Baltimore:											
Equipment of vessels (S. E.)	157.10	43.92	25.51								226.53
Ordnance and ordnance stores				41.08	12.32						53.40
Construction and repair	313.10	115.34	165.61	81.51	33.64	328.87					1,038.07
Steam machinery	140.10	55.56	22.33								217.99
Total	610.30	214.82	213.45	122.59	45.96	328.87					1,535.99
Barney:											
Equipment of vessels (S. E.)	70.03	26.86	.51								97.40
Construction and repair	739.59	297.08	195.99	27.98	11.22	6.97	291.13	115.18	5.38		1,690.52
Steam machinery	501.18	224.55	37.39								763.12
Total	1,310.80	548.49	233.89	27.98	11.22	6.97	291.13	115.18	5.38		2,551.04
Barry:											
Construction and repair	21.87	12.03	12.75							$757.35	804.00
Steam machinery	3,190.68	1,480.77	7,770.73							19.53	12,461.71
Total	3,212.55	1,492.80	7.783.48							776.88	13,265.71
Biddle:											
Equipment of vessels (S. E.)			.26								.26
Construction and repair	23.94	8.86									32.80
Steam machinery	106.58	48.47	1.51								156.56
Total	130.52	57.33	1.77								189.62

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Birmingham:											
Equipment of vessels (C. & R.)	$118.48	$39.35	$58.39	$33.48	$20.09	$21.08					$290.87
Equipment of vessels (S. E.)	179.23	60.33	57.61	1,221.13	487.16	5,198.54					7,204.00
Ordnance and ordnance stores	1,363.65	533.43	158.74	68.08	27.23		$6.44	$2.92	$2.32		2,162.81
Construction and repair	6,042.50	2,620.75	2,451.06	2,315.83	1,139.95	950.02					15,520.11
Steam machinery	17,810.11	6,628.37	9,460.58	1,347.99	468.28	379.04					36,094.37
Total	25,513.97	9,882.23	12,186.38	4,986.51	2,142.71	6,548.68	6.44	2.92	2.32		61,272.16
Blakely:											
Equipment of vessels (S. E.)	2.72	.82									3.54
Construction and repair	244.98	85.40	59.72								390.10
Steam machinery	69.52	17.38	10.37								97.27
Total	317.22	103.60	70.09								490.91
Boston:											
Steam machinery										$20.20	20.20
Brooklyn:											
Equipment of vessels (C. & R.)	133.14	79.86	54.07								267.07
Ordnance and ordnance stores	355.83	189.24	2,240.00	1,152.83	298.71	*11.66*					4,224.95
New batteries ships Navy				2,819.98	890.41	5,940.05					9,650.44
Construction and repair	11,534.83	4,427.10	2,571.37	19.36	8.65	7,255.88					25,817.19
Steam machinery	34,635.69	13,587.61	11,310.63	60.48	27.88	1,188.28					60,810.57
Total	46,659.49	18,283.81	16,176.07	4,052.65	1,225.65	14,372.55					100,770.22
Brutus:											
Equipment of vessels (S. E.)	23.68	8.16	.14	8.28	3.74						44.00
Construction and repair	3,389.19	1,183.42	1,266.07	356.09	131.43	107.76					6,433.96
Steam machinery	3,133.42	1,355.33	1,183.48	1,121.04	336.84	989.69					8,119.80
Total	6,546.29	2,546.91	2,449.69	1,485.41	472.01	1,097.45					14,597.76
Buffalo:											
Equipment of vessels (C. & R.)	265.73	89.23	521.57								876.53
Equipment of vessels (S. E.)	317.24	152.79	50.57								520.60

Construction and repair	2,013.77	788.73	1,897.98	418.25	179.92	294.95					5,593.60
Steam machinery	240.50	173.62	60.51								474.63
Total	2,837.24	1,204.37	2,530.63	418.25	179.92	294.95					7,465.36
Burrows:											
Equipment of vessels (S. E.)	199.43	44.27	.39	611.46	265.36	398.74					1,519.65
Ordnance and ordnance stores							7.60	3.56			11.16
Construction and repair	1,589.96	694.23	502.63	245.70	98.64	18.29	174.77	54.79	41.42		3,420.43
Steam machinery	557.93	278.77	126.29	250.93	122.83	457.18					1,793.93
Steam machinery, 1911			*18.09*								*18.09*
Total	2,347.32	1,017.27	611.22	1,108.09	486.83	874.21	182.37	58.35	41.42		6,727.08
Caesar:											
Equipment of vessels (S. E.)	516.68	145.42	598.65								1,260.75
Construction and repair	4,719.70	1,714.80	1,683.19	805.31	320.56	313.04	111.86	61.22	11.92		9,741.60
Steam machinery	697.34	219.90	312.39	26.00	8.57	10.94					1,275.14
Total	5,933.72	2,080.12	2,594.23	831.31	329.13	323.98	111.86	61.22	11.92		12,277.49
Callao:											
Construction and repair										1,196.80	1,196.80
Steam machinery			6,151.82							1,142.21	7,294.03
Total			6,151.82							2,339.01	8,490.83
California:											
Equipment of vessels (C. & R.)	33.26	10.50	55.51								99.27
Equipment of vessels (S. E.)	748.96	405.01	1,304.61	4,925.34	2,217.32	4,323.70					13,924.94
Ordnance and ordnance stores	2,942.42	1,892.31	619.74	19.63	8.88	*27.68*					5,455.30
Construction and repair	3,875.02	1,515.44	2,527.88	19,589.45	8,041.97	11,101.44					46,651.20
Steam machinery	6,435.63	3,046.44	7,329.83	8,210.69	3,810.86	2,192.55					31,026.00
Total	14,035.29	6,869.70	11,837.57	32,745.11	14,079.03	17,590.01					97,156.71
Castine:											
Equipment of vessels (C. & R.)	148.10	47.59	54.74	2.72	.82	156.00					409.97
Equipment of vessels (S. E.)	389.24	193.99	13.81			7.52					604.56
Construction and repair	1,449.32	484.35	503.08				126.34	38.33	19.85		2,621.27
Steam machinery	477.80	226.97	92.59	2.52	1.26	29.00					830.14
Total	2,464.46	952.90	664.22	5.24	2.08	192.52	126.34	38.33	19.85		4,465.94
Celtic:											
Equipment of vessels (C. & R.)	17.28	6.91	6.59								30.78
Equipment of vessels (S. E.)				108.32	30.61	116.11					255.04
Construction and repair	1,564.54	761.05	785.28	57.29	33.75	36.80					3,238.71
Steam machinery	741.62	387.46	405.09	1,068.08	375.74	572.96	92.92	46.22	40.82		3,730.91
Total	2,323.44	1,155.42	1,196.96	1,233.69	440.10	725.87	92.92	46.22	40.82		7,255.44

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Charleston:											
Equipment of vessels (C. & R.)	$475.82	$191.29	$98.21			$114.50					$879.82
Equipment of vessels (S. E.)	2,670.24	1,477.16	417.24	$4,975.98	$2,335.58	3,720.41					15,596.61
Ordnance and ordnance stores				*114.28*	*36.38*	498.57					347.91
Construction and repair	29,996.61	14,729.62	8,455.70	12,591.52	5,980.38	4,924.14					76,677.97
Steam machinery	35,007.81	22,216.33	20,238.62	6,797.24	3,794.33	6,880.71					94,935.04
Total	68,150.48	38,614.40	29,209.77	24,250.46	12,073.91	16,138.33					188,437.35
Chattanooga:											
Equipment of vessels (C. & R.)	331.47	118.98	148.18			1,717.62					2,316.25
Equipment of vessels (S. E.)	1,194.66	538.28	647.95	3,440.16	1,850.61	2,341.73					10,013.39
Ordnance and ordnance stores				20.76	15.57	1.82					38.15
Construction and repair	25,970.29	11,613.53	8,267.09	7,600.88	4,095.88	3,341.42					60,889.09
Steam machinery	25,015.69	15,079.32	15,158.22	664.52	327.38	197.57					56,442.70
Total	52,512.11	27,350.11	24,221.44	11,726.32	6,289.44	7,600.16					129,699.58
Chauncey:											
Equipment of vessels (C. & R.)	28.76	15.82	103.41			119.82					267.81
Equipment of vessels (S. E.)	653.98	283.95	1,469.35								2,407.28
Construction and repair	7,120.41	5,249.50	1,947.22	602.20	460.34	156.18					15,535.85
Steam machinery	16,411.23	7,556.72	9,827.91	345.20	151.78	240.51					34,533.35
Total	24,214.38	13,105.99	13,347.89	747.40	612.12	516.51					52,744.29
Chester:											
Equipment of vessels (C. & R.)	38.04	16.65	21.44								76.13
Equipment of vessels (S. E.)	789.95	253.48	1,588.12	1,929.82	623.97	2,310.34					7,495.68
Ordnance and ordnance stores	356.53	174.65	4.99								536.17
Construction and repair	4,202.40	1,527.51	2,408.91	4,062.88	1,749.22	1,969.54	$24.34	$12.17	$0.88		15,957.85
Steam machinery	18,798.82	7,182.98	3,540.43	2,700.07	1,047.78	949.71				$56.76	34,271.55
Total	24,180.74	9,155.27	7,563.89	8,692.77	3,420.97	5,229.59	24.34	12.17	.88	56.76	58,337.88

Cheyenne:											
Equipment of vessels (S. E.)	2.18	1.02	...	449.71	188.46	1,211.74	...	...	...	...	1,853.11
Ordnance and ordnance stores	39.00	19.11	1.00	1,423.09	747.90	297.45	...	...	...	...	2,527.55
Construction and repair	519.35	192.80	203.46	504.68	256.35	71.89	...	...	...	...	1,748.53
Steam machinery	722.43	278.28	148.32	301.13	185.05	68.68	...	...	...	...	1,703.89
Total	1,282.96	491.21	352.78	2,678.61	1,377.76	1,649.76	...	...	...	...	7,833.08
Chicago											
Equipment of vessels (C. & R.)	69.46	27.11	26.66	...	...	...	...	...	...	...	123.23
Equipment of vessels (S. E.)	97.20	39.68	29.14	267.42	111.75	14.09	22.88	12.29	.76	...	595.21
Construction and repair	3,714.64	1,659.45	1,066.83	632.32	348.86	155.57	...	...	...	...	7,577.67
Steam machinery	3,954.64	1,955.68	834.08	671.59	339.24	2.91	59.77	31.41	.42	...	7,849.74
Total	7,835.94	3,681.92	1,956.71	1,571.33	799.85	172.57	82.65	43.70	1.18	...	16,145.85
Choctaw:											
Equipment of vessels (S. E.)	18.90	...	18.52	...	...	...	...	...	...	...	37.42
Construction and repair	266.02	160.36	98.67	...	...	...	79.65	34.35	4.72	...	643.77
Steam machinery	1,237.31	315.19	76.87	...	...	...	...	...	...	...	1,629.37
Total	1,522.23	475.55	194.06	...	...	...	79.65	34.35	4.72	...	2,310.56
Cincinnati:											
Equipment of vessels (S. E.)	...	...	...	153.58	63.86	311.72	...	...	...	...	529.16
Construction and repair	703.23	226.84	696.10	824.18	389.61	365.64	17.57	8.36	1.45	...	3,232.98
Steam machinery	192.82	96.80	208.33	...	...	...	...	...	...	...	497.95
Total	896.05	323.64	904.43	977.76	453.47	677.36	17.57	8.36	1.45	...	4,260.09
Cleveland:											
Equipment of vessels (C. & R.)	627.07	199.94	1,290.42	*38.08*	*13.33*	*50.90*	...	...	...	...	2,015.12
Equipment of vessels (S. E.)	4,935.40	2,502.33	1,909.66	1,176.27	556.60	1,051.49	...	...	...	...	12,131.75
Construction and repair	57,573.24	20,746.25	20,831.78	4,354.41	1,705.46	1,540.64	160.20	73.43	46.60	...	107,032 01
Steam machinery	26,260.53	14,169.28	9,121.06	1,744.38	886.85	917.90	...	...	...	...	53,100.00
Equipment of vessels (C. & R.) 1910	...	...	300.00	...	...	...	...	...	...	...	300.00
Total	89,396.24	37,617.80	33,452.92	7,236.98	3,135.58	3,459.13	160.20	73.43	46.60	...	174,578.88
Colorado:											
Equipment of vessels (C. & R.)	76.01	31.72	267.50	...	...	...	...	...	...	...	375.23
Equipment of vessels (S. E.)	166.19	66.48	106.15	14.64	5.86	*176.32*	...	...	...	...	183.00
Construction and repair	1,316.54	563.72	2,361.91	2,089.91	878.61	832.88	...	...	...	323.57	8,367.14
Steam machinery	282.44	134.94	860.31	147.87	67.28	39.98	...	...	...	...	1,532.82
Total	1,841.18	796.86	3,595.87	2,252.42	951.75	696.54	...	...	...	323.57	10,458.19
Concord:											
Equipment of vessels (C. & R.)	...	...	25.17	...	...	...	...	...	...	...	25.17

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Connecticut:											
Equipment of vessels (C. & R.)	$206.48	$79.75	$151.53	$55.96	$22.62	$333.57					$849.91
Equipment of vessels (S. E.)	1,415.28	611.47	975.45	400.20	176.51	1,169.55					4,748.46
Ordnance and ordnance stores	4,232.99	2,090.22	184.39	316.64	141.98	39.99					7,006.26
Construction and repair	4,219.18	1,695.86	3,058.60	5,636.01	2,155.27	2,384.17	$116.44	$35.86	$0.55	$60.45	19,391.23
Steam machinery	12,525.85	5,357.63	4,848.12	1,483.03	598.77	604.25					25,417.65
Steam machinery, 1911						*125.84*					*125.84*
Total	22,599.78	9,834.93	9,218.09	7,891.84	3,095.15	4,405.69	116.44	35.86	.55	60.45	57,258.78
Constellation:											
Equipment of vessels (C. & R.)			1,150.00								1,150.00
Construction and repair	4,295.80									183.00	4,478.80
Equipment of vessels (C. & R.) 1911										350.00	350.00
Total	4,295.80		1,150.00							533.00	5,978.80
Constitution:											
Equipment of vessels (C. & R.)	967.37	208.19	1,026.83								2,202.39
Craven:											
Equipment of vessels (S. E.)	10.32	5.16	.11								15.59
Ordnance and ordnance stores				109.46	51.98	24.55					185.99
Construction and repair	218.94	84.71	96.83	116.05	51.39	19.26					587.18
Steam machinery	1,675.55	775.00	364.39	24.78	9.70	19.72					2,869.14
Total	1,904.81	864.87	461.33	250.29	113.07	63.53					3,657.90
Culgoa:											
Equipment of vessels (S. E.)	821.26	194.78	562.90	291.53	71.37	1,316.90					3,258.74
Construction and repair	16,371.36	5,262.83	6,058.59	5,506.97	1,681.09	2,233.79					37,114.63
Steam machinery	3,412.42	1,021.23	506.50	1,943.42	616.59	1,653.61					9,153.77
Total	20,605.04	6,478.84	7,127.99	7,741.92	2,369.05	5,204.30					49,527.14
Cumberland:											
Construction and repair	8.28	3.72									12.00

Cushing:											
Equipment of vessels (S. E.)	28.71	11.55	4.68								44.94
Construction and repair	24.28	10.93	4.59								39.80
Steam machinery				8.96	4.03						12.99
Total	52.99	22.48	9.27	8.96	4.03						97.73
Cyclops:											
Equipment of vessels (S. E.)	5.04	1.51	60.00	45.30	14.30	31.84					157.99
Construction and repair	2,433.13	690.84	1,043.87	272.21	88.83	114.83					4,643.71
Steam machinery	1,433.11	603.38	1,379.18	174.45	72.62	553.44					4,216.18
Total	3,871.28	1,295.73	2,483.05	491.96	175.75	700.11					9,017.88
Dahlgren:											
Ordnance and ordnance stores				103.76	36.88	11.75					152.39
Construction and repair	137.66	53.82	99.63	83.48	34.04	14.85					423.48
Steam machinery	67.60	26.17	12.03								105.80
Total	205.26	79.99	111.66	187.24	70.92	26.60					681.67
Dale:											
Equipment of vessels (S. E.)	347.04	216.51	265.62								829.17
Construction and repair	5,094.43	2,346.90	1,927.89	623.08	408.26	203.57					10,604.13
Steam machinery	3,097.13	1,909.58	1,932.31	1,738.33	808.20	39,999.09					49,484.64
Total	8,538.60	4,472.99	4,125.82	2,361.41	1,216.46	40,202.66					60,917.94
Davis:											
Equipment of vessels (C. & R.)	86.80	43.52	19.85								150.17
Construction and repair	308.43	115.17	172.99	.66	.20						597.45
Steam machinery	102.19	56.30	6.82								165.31
Total	497.42	214.99	199.66	.66	.20						912.93
Decatur:											
Ordnance and ordnance stores				133.43	73.39	112.49					319.31
Construction and repair	30.62	28.95									59.57
Steam machinery	28.28	37.58	93.64								84.34
Total	58.90	8.63	93.64	133.43	73.39	112.49					463.22
Delaware:											
Equipment of vessels (C. & R.)	20.53	6.22	1.80			57.32					85.87
Equipment of vessels (S. E.)	79.66	18.65	11.21	3,486.88	911.24	2,990.57			695.00		8,193.21
Ordnance and ordnance stores	196.08	79.13	17.93	107.21	59.80	13,199.94					13,659.59
Construction and repair	5,182.08	1,682.94	3,348.00	38,566.66	13,318.27	15,105.96					77,203.91
Steam machinery	852.75	296.30	911.38	4,063.10	1,174.07	1,772.88					9,070.48
Total	6,331.10	2,083.24	4,290.32	46,223.85	15,462.88	33,126.67			695.00		108,213.06

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
De Long:											
Equipment of vessels (S. E.)	$11.77	$6.04	$1.00								$18.81
Construction and repair	1,032.71	405.52	251.06	$7.78	$3.76	$1.92					1,702.75
Steam machinery	16.08	4.83	2.87								23.78
Total	1,060.56	416.39	254.93	7.78	3.76	1.92					1,745.34
Denver:											
Equipment of vessels (C. & R.)	671.62	238.78	1,723.23								2,633.63
Equipment of vessels (S. E.)	1,945.29	931.84	394.30	1,231.18	591.18	593.65					5,687.44
Construction and repair	28,727.04	10,510.31	7,429.36	5,998.45	2,443.23	1,258.08	$77.30	$27.06	$5.19		56,476.02
Steam machinery	22,670.43	11,605.64	16,011.00	565.72	279.54	94.76					51,227.09
Total	54,014.38	23,286.57	25,557.89	7,795.35	3,313.95	1,946.49	77.30	27.06	5.19		116,024.18
Des Moines:											
Equipment of vessels (C. & R.)	14.12	5.65	278.81								298.58
Equipment of vessels (S. E.)	386.38	207.54	147.19	703.80	313.78	1,078.43	12.40	4.96			2,854.48
Construction and repair	9,783.84	5,155.26	5,643.18	3,018.53	1,511.13	818.66	10.94	5.47	5.21		25,952.22
Steam machinery	11,632.35	5,793.32	2,990.72	622.61	328.55	92.89	4.23	2.54			21,467.21
Total	21,816.69	11,161.77	9,059.90	4,344.94	2,153.46	1,989.98	27.57	12.97	5.21		50,572.49
Dixie:											
Equipment of vessels (C. & R.)	108.88	32.15	47.06	42.87	11.20	1,559.51					1,801.67
Equipment of vessels (S. E.)	63.34	13.18	.08	1,000.88	231.24	3,509.29					4,818.01
Construction and repair	2,344.98	770.35	1,358.34	8,596.98	2,854.15	3,325.74				$478.12	19,728.66
Steam machinery	379.64	148.11	125.02	4,337.73	1,232.45	1,673.58				3,721.20	11,617.73
Steam machinery, 1911										347.04	347.04
Total	2,896.84	963.79	1,530.50	13,978.46	4,329.04	10,068.12				4,546.36	38,313.11
Dolphin:											
Equipment of vessels (C. & R.)	34.45	9.04	58.81								102.30
Equipment of vessels (S. E.)	131.17	33.43	6.04	413.83	100.75	2,196.26					2,881.48
Construction and repair	2,546.57	933.99	780.73	649.02	244.04	116.51					5,270.86
Steam machinery	2,538.22	740.21	332.60	165.96	39.81	117.41					3,934.21
Total	5,250.41	1,716.67	1,178.18	1,226.81	384.60	2,430.18					12,188.85

Dorothea:											
Arming and equipping, Naval Militia										101.21	101.21
Construction and repair										894.99	894.99
Construction and repair, 1911										2,122.13	2,122.13
Steam machinery										369.49	369.49
Steam machinery, 1911										1,109.08	1,109.08
Total										4,596.90	4,596.90
Drayton:											
Equipment of vessels (S. E.)	8.28	2.90		22.80	4.38	2.60					40.96
Construction and repair	789.12	273.96	296.23	2,416.02	750.66	779.90					5,305.89
Steam machinery	551.07	195.33	158.64			8.00					913.04
Total	1,348.47	472.19	454.87	2,438.82	755.04	790.50					6,259.89
Dubuque:											
Construction and repair										69.70	69.70
Steam machinery										181.95	181.95
Total										251.65	251.65
Dupont:											
Equipment of vessels (S. E.)	2.07	.62									2.69
Construction and repair	362.93	118.73	213.83								695.49
Steam machinery	335.75	121.94	36.96	68.40	23.41	4.24					582.22
Total	700.75	241.29	250.79	68.40	23.41	4.24					1,280.40
Eagle:											
Ocean and lake surveys				30.76	5.57						36.33
Equipment of vessels (S. E.)	.56	.08	1.53	156.49	26.80	52.14					237.60
Construction and repair	1,980.97	542.55	770.72	159.54	40.65	67.74					3,562.17
Steam machinery	2,319.58	692.79	653.23	227.14	79.77	78.01					4,050.52
Total	4,301.11	1,235.42	1,425.48	573.93	152.79	197.89					7,886.62
Elcano:											
Construction and repair										4.13	4.13
Elfrida:											
Construction and repair										61.42	61.42
Ericsson:											
Construction and repair	255.91	98.05	122.20	7.68	3.46		594.26	301.65	78.37		1,461.58
Steam machinery				15.24	6.86						22.10
Total	255.91	98.05	122.20	22.92	10.32		594.26	301.65	78.37		1,483.68

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Farragut:											
Equipment of vessels (C. & R.)	$5.28	$2.11	$30.80								$38.19
Equipment of vessels (S. E.)	47.86	21.52	36.20	$77.09	$35.65	$24.21					242.53
Construction and repair	928.17	352.08	492.89	102.11	38.63	19.86					1,933.74
Steam machinery	1,597.00	601.02	141.12	508.40	236.08	240.71					3,324.33
Total	2,578.31	976.73	701.01	687.60	310.36	284.78					5,538.79
Florida:											
Equipment of vessels (C. & R.)	23.28	15.35	.49								39.12
Equipment of vessels (S. E.)	132.28	43.59	21.13	3.76	1.50	.02					202.24
Ordnance and ordnance stores	7.74	2.32	12.99	7.52	3.76					$100.00	134.33
Construction and repair	2,755.40	953.76	1,336.92	74.60	31.23						5,151.91
Steam machinery	2,285.63	810.70	6,855.74	470.83	193.39	329.40					10,945.69
Total	5,204.33	1,825.72	8,227.27	556.71	229.88	329.38				100.00	16,473.29
Flusser:											
Equipment of vessels (C. & R.)						4.35					4.35
Equipment of vessels (S. E.)	144.52	54.56	42.07	651.05	207.68	390.48					1,490.36
Construction and repair	1,060.47	468.87	769.02	1,338.46	428.27	625.39					4,690.48
Steam machinery	3,898.45	1,969.74	798.46	1,049.35	472.75	804.75					8,993.50
Total	5,103.44	2,493.17	1,609.55	3,038.86	1,108.70	1,824.97					15,178.69
Foote:											
Equipment of vessels (S. E.)	33.52	13.41	20.87	44.78	18.27						130.85
Steam machinery	624.35	248.88	47.68								920.91
Total	657.87	262.29	68.55	44.78	18.27						1,051.76
Fortune:											
Equipment of vessels (C. & R.)	12.40	5.35	.21								17.96
Equipment of vessels (S. E.)			3.33								3.33
Total	12.40	5.35	3.54								21.29

Fox:											
Equipment of vessels (C. & R.)	38.37	15.69	3.04								57.10
Construction and repair	403.36	141.32	264.03	.90	.27						809.88
Steam machinery	263.60	124.71	30.86	34.38	17.42	.80					471.77
Total	705.33	281.72	297.93	35.28	17.69	.80					1,338.75
Franklin:											
Equipment of vessels (C. & R.)	72.06	26.96	177.60								276.62
Equipment of vessels (S. E.)	12.16	3.65	1.65								17.46
Construction and repair	117.18	39.25	165.39	96.01	44.08	17.76					479.67
Steam machinery	129.69	70.08	145.61							58.18	403.56
Total	331.09	139.94	490.25	96.01	44.08	17.76				58.18	1,177.31
Galveston:											
Equipment of vessels (C. & R.)	353.86	130.39	231.30			1,619.83					2,335.38
Equipment of vessels (S. E.)	1,312.75	706.67	324.28	3,808.71	1,963.42	2,494.46					10,610.29
Ordnance and ordnance stores	43.28	30.30		32.01	19.93	29.98					155.50
Construction and repair	19,136.28	8,429.86	4,277.74	4,940.09	2,495.30	1,641.60					40,920.87
Steam machinery	12,832.46	6,100.67	9,530.95	1,685.71	777.98	1,495.70					32,423.47
Total	33,678.63	15,397.89	14,364.27	10,466.52	5,256.63	7,281.57					86,445.51
Georgia:											
Equipment of vessels (Nav.)	1.76	.88									2.64
Equipment of vessels (C. & R.)	82.52	39.25	226.14								347.91
Equipment of vessels (S. E.)	1,003.58	402.29	161.37	202.24	83.64	56.43					1,909.55
Ordnance and ordnance stores	4,644.31	1,877.95	478.73	7,809.45	3,117.88	185.86				2,463.59	20,577.77
Construction and repair	7,095.33	2,872.96	2,669.21	7,346.19	3,787.29	3,266.66	$30.86	$20.51	$0.78		27,089.79
Steam machinery	2,751.77	1,069.76	1,813.15	1,922.97	771.02	468.35					8,797.02
Total	15,579.27	6,263.09	5,348.60	17,280.85	7,759.83	3,977.30	30 86	20.51	.78	2,463.59	58,724.68
General Alava:											
Construction and repair	2,108.75	899.50	1,388.83								4,397.08
Steam machinery	1,611.56	736.39	591.31								2,939.26
Total	3,720.31	1,635.89	1,980.14								7,336.34
Glacier:											
Equipment of vessels (C. & R.)	3.60	1.08									4.68
Equipment of vessels (S. E.)	14.40	7.47		48.05	16.56	46.47					132.95
Construction and repair	6,131.83	2,695.13	3,801.03	1,326.71	469.34	497.38	887.12	408.78	237.01	220.00	16,674.33
Steam machinery	2,011.85	1,062.19	854.73	1,511.59	730.52	1,160.12					7,331.00
Total	8,161.68	3,765.87	4,655.76	2,886.35	1,216.42	1,703.97	887.12	408.78	237.01	220.00	24,142.96

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Gloucester:											
Construction and repair	$647.94	$189.05	$154.77								$991.76
Steam machinery	511.15	182.39	102.31								795.85
Total	1,159.09	371.44	257.08								1,787.61
Goldsborough:											
Equipment of vessels (C. & R.)				$15.60	$8.03	$8.32					31.95
Equipment of vessels (S. E.)	67.27	33.22	.20	55.75	25.43	20.79					202.66
Ordnance and ordnance stores				4.50	3.15	.18					7.83
Construction and repair	2,009.54	967.60	579.26	559.56	284.29	78.51	$5.90	$3.25	$0.28		4,488.19
Steam machinery	2,850.61	1,754.06	4,336.16	226.15	115.86	133.01					9,415.85
Total	4,927.42	2,754.88	4,915.62	861.56	436.76	240.81	5.90	3.25	.28		14,146.48
Gopher:											
Construction and repair										$5,359.50	5,359.50
Steam machinery										611.80	611.80
Construction and repair, 1910										510.00	510.00
Equipment of vessels (S. E.), 1911										100.00	100.00
Total										6,581.30	6,581.30
Gwin:											
Equipment of vessels (S. E.)	3.12	.62									3.74
Construction and repair	319.63	52.70	84.23								456.56
Steam machinery	58.56	6.66	14.69								79.91
Total	381.31	59.98	98.92								540.21
Hancock:											
Equipment of vessels (C. & R.)	298.92	101.31	167.53								567.76
Construction and repair	810.30	292.97	612.59	58.18	21.34	5.88					1,801.26
Total	1,109.22	394.28	780.12	58.18	21.34	5.88					2,369.02

Hannibal:											
Equipment of vessels (C. & R.)			1.76	334.60	126.72	266.77	10.96	1.10			741.91
Equipment of vessels (S. E.)	37.09	6.66	2.12	896.93	199.26	1,301.05					2,443.11
Construction and repair	1,273.12	310.59	533.81	12,933.10	4,285.47	6,521.72	310.32	79.01	85.85		26,332.99
Steam machinery	1,712.22	468.28	346.77	815.58	209.60	663.56				23.28	4,239.29
Total	3,022.43	785.53	884.46	14,980.21	4,821.05	8,753.10	321.28	80.11	85.85	23.28	33,757.30
Hawk:											
Arming and equipping, Naval Militia										250.61	250.61
Construction and repair										326.45	326.45
Steam machinery										45.00	45.00
Construction and repair, 1911										4,471.78	4,471.78
Steam machinery, 1911										4,555.23	4,555.23
Total										9,649.07	9,649.07
Hector:											
Equipment of vessels (C. & R.)	5.52	1.66		297.99	95.34	702.53					1,103.04
Equipment of vessels (S. E.)	106.04	47.66	21.28	203.64	63.14	22.71					464.47
Construction and repair	2,825.67	1,182.62	887.38	5,414.31	2,289.69	1,451.33	143.93	91.09	45.99		14,332.01
Steam machinery	2,199.11	1,064.35	427.08	1,036.73	493.82	1,409.17					6,630.26
Total	5,136.34	2,296.29	1,335.74	6,952.67	2.941.99	3,585.74	143.93	91.09	45.99		22,529.78
Helena:											
Construction and repair										526.79	526.79
Steam machinery										6,730.95	6,730.95
Total										7,257.74	7,257.74
Hercules:											
Equipment of vessels (C. & R.)				1.64	33						1.97
Equipment of vessels (S. E.)	15.80	4.74	2.00								22.54
Construction and repair	491.87	277.39	131.49	96.82	36.53	7.61					1,041.71
Steam machinery	766.82	414.00	423.42								1,604.24
Total	1,274.49	696.13	556.[illegible]	98.46	36.86	7.61					2,670.46
Hist:											
Construction and repair				63.20	16.82	9.21					89.23
Steam machinery	3.28	.98		169.73	35.69	4.92					214.60
Total	3.28	.98		232.93	52.51	14.13					303.83
Hopkins:											
Equipment of vessels (C. & R.)			3.60	9.58	3.74	8.56					25.48
Equipment of vessels (S. E.)	44.78	19.49	8.35	154.61	71.55	933.11					1,231.89
Construction and repair	1,271.87	477.16	718.37	37.21	19.49	7.28	81.47	31.92	.24		2.645.01
Steam machinery	1,573.62	789.69	1,139.83	258.94	133.59	175.48					4,071.15
Total	2,890.27	1,286.34	1,870.15	460.34	228.37	1,124.43	81.47	31.92	.24		7,973.53

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Hull:											
Equipment of vessels (C. & R.)	$40.84	$14.97	$17.90	$10.22	$3.93	$8.59					$96.45
Equipment of vessels (S. E.)	2.56	1.15		92.74	41.80	908.02					1,046.27
Construction and repair	963.65	356.48	567.54	115.50	46.07	17.53					2,066.86
Steam machinery	1,237.05	648.09	3,985.30	50.52	29.46	85.87					5,924.55
Total	2,244.10	1,020.69	4,570.74	269.07	121.26	908.27					9,134.13
Huntress:											
Steam machinery										$23.25	23.25
Steam machinery, 1911										39.96	39.96
Total										63.21	63.21
Idaho:											
Equipment of vessels (C. & R.)	286.67	119.11	362.66	21.84	10.92	18.15					819.35
Equipment of vessels (S. E.)	985.36	399.57	326.96	7,355.48	2,975.29	4,938.09					16,980.75
Ordnance and ordnance stores	1,032.59	456.03	662.69	1,929.22	1,067.24	61.44					5,209.21
Modernizing turrets				3,115.56	1,202.62	2,268.25					6,586.43
Construction and repair	6,277.52	2,710.83	5,286.90	30,353.05	12,591.94	21,413.86	$2.43	$1.29	$0.16		78,637.98
Steam machinery	4,480.58	1,621.19	6,388.74	3,046.61	1,261.26	1,038.57				77.94	17,914.89
Total	13,062.72	5,306.73	13,027.95	45,821.76	19,109.27	29,738.36	2.43	1.29	.16	77.94	126,148.61
Illinois:											
Equipment of vessels (Nav.)	10.00	2.95	9.22								22.17
Equipment of vessels (C. & R.)	107.06	43.10	129.03	295.31	134.21	3,815.08					4,523.79
Equipment of vessels (S. E.)	12,567.31	5,062.94	7,429.52	18,992.16	5,953.02	18,590.46					68,595.41
Ordnance and ordnance stores	4,122.15	1,787.73	200.61	7,792.26	2,967.48	1,333.21	34.64	19.90			18,257.98
Modernizing turrets				3,815.42	1,176.79	3,468.91					8,461.12
Construction and repair	82,514.06	32,417.86	26,221.51	62,216.54	26,837.97	27,113.57	91.11	42.21	8.67		257,463.50
Steam machinery	56,002.53	22,070.53	21,124.71	12,415.72	5,146.21	7,399.93	1,728.58	509.81	832.81		127,230.83
Steam machinery, 1910										65,930.40	65,930.40
Total	155,323.11	61,385.11	55,114.60	105,527.41	42,215.68	61,721.16	1,854.33	571.92	841.48	65,930.40	550,485.20

Independence:											
Equipment of vessels (C. & R.)	56.13	21.66	18.11								95.90
Equipment of vessels (S. E.)				42.36	19.06	11.33					72.75
Construction and repair	6.62	1.99	8.16								16.77
Steam machinery	8.93	5.36		371.08	138.35	122.86					646.58
Total	71.68	29.01	26.27	413.44	157.41	134.19					832.00
Indiana:											
Equipment of vessels (C. & R.)	156.69	64.17	125.24			153.78					499.88
Equipment of vessels (S. E.)	190.98	75.32	29.59	308.31	122.76	1,307.12					2,034.08
Construction and repair	793.78	320.89	358.80	2,436.78	865.79	960.32					5,736.36
Steam machinery	3,552.58	1,516.38	2,658.31	360.34	110.26	643.53					8,831.40
Total	4,694.03	1,976.76	3,171.94	3,095.43	1,098.81	3,064.75					17,101.72
Intrepid:											
Equipment of vessels (C. & R.)	82.70	29.02	45.45								157.17
Equipment of vessels (S. E.)	343.73	180.91	57.50	249.63	136.45	39.60					1,007.82
Construction and repair	1,081.44	487.73	562.13								2,131.30
Steam machinery	771.78	433.56	277.21	219.26	104.75	125.70					1,932.26
Total	2,279.65	1,131.22	942.29	468.89	241.20	165.30					5,228.55
Iowa:											
Equipment of vessels (C. & R.)	212.65	91.66	101.36								405.67
Equipment of vessels (S. E.)	94.86	21.21	9.19	612 22	249.98	842.75					1,830.21
Ordnance and ordnance stores	232.93	119.01	6.75								358.69
Construction and repair	7,448.10	2,245.04	2,959.31	5,198.01	1,851.76	1,143.51					20,845.73
Steam machinery	3,953.29	1,569.43	791.99	85.85	35.62	41.12					6,477.30
Total	11,941.83	4,046.35	3,868.60	5,896.08	2,137.36	2,027.38					29,917.60
Iris:											
Construction and repair	147.99	52.35	334.91								535.25
Steam machinery	13.76	6.19									19.95
Total	161.75	58.54	334.91								555.20
Iroquois:											
Equipment of vessels (C. & R.)	129.38	57.49	188.45								375.32
Equipment of vessels (S. E.)	160.51	79.70	122 95	146.97	63.74	117.13					691.00
Construction and repair	1,559.80	701.09	1,009 42	1,460.61	769.05	526.95					6,026.92
Steam machinery	959.85	428.23	525.99	2,096.81	1,145.64	1,718.02					6,874.54
Total	2,809.54	1,266.51	1,846.81	3,704.39	1,978.43	2,362.10					13,967.78

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Isla de Cuba:											
Construction and repair										$20.00	$20.00
Steam machinery										243.75	243.75
Construction and repair, 1911										760.95	760.95
Steam machinery, 1911										872.25	872.25
Total										1,896.95	1,896.95
Isla de Luzon:											
Equipment of vessels (C. & R.)										35.00	35.00
Construction and repair	$2,223.85		$495.44							120.10	2,839.39
Steam machinery	152.65		28.00								180.65
Total	2,376.50		523.44							155.10	3,055.04
Iwana:											
Equipment of vessels (C. & R.)	3.76	$1.88	4.40								10.04
Equipment of vessels (S. E.)	8.04	2.41	1.51	$26.40	$8.80	$12.96					60.12
Construction and repair	147.00	71.73	73.19								291.92
Steam machinery	540.14	218.66	119.89								878.69
Total	698.94	294.68	198.99	26.40	8.80	12.96					1,240.77
Jenkins:											
Steam machinery	32.85	16.38									49.23
Jouett:											
Steam machinery	47.48	22.28	1.19								70.95
Jupiter:											
Steam machinery				9.00	4.95						13.95
Justin:											
Equipment of vessels (S. E.)				51.99	24.32	33.21					109.52
Construction and repair	7,820.88	3,589.46	2,590.19	1,847.69	753.11	788.54					17,389.87
Steam machinery	2,814.32	1,670.93	772.19	406.36	179.00	107.50					5,950.30
Total	10,635.20	5,260.39	3,362.38	2,306.04	956.43	929.25					23,449.69

Kansas:										
Equipment of vessels (C. & R.)	172.71	66.08	183.57							422.31
Equipment of vessels (S. E.)	51.50	19.62	4.59	6,976.88	2,188.99	3,844.39				13,085.97
Ordnance and ordnance stores	382.20	172.00	1.68	2,625.04	1,037.15	339.10				4,557.17
Modernizing turrets				4,773.82	1,618.61	5,007.69				11,400.12
Construction and repair	10,938.43	3,697.90	7,867.06	30,147.77	10,374.06	14,525.00				77,550.22
Steam machinery	3,042.90	1,463.20	1,769.84	3,179.93	1,384.92	2,576.35				13,417.14
Total	14,587.74	5,418.75	9,826.74	47,703.44	16,603.73	26,292.53				120,432.93
Kearsarge:										
Equipment of vessels (Nav.)			132.30							132.30
Equipment of vessels (C. & R.)	35.75	14.08	815.15	710.36	247.19	3,759.05				5,581.58
Equipmnet of vessels (S. E.)	19,849.66	6,690.69	15,451.62	8,018.33	2,406.33	7,252.62				59,669.25
Ordnance and ordnance stores	4,027.22	1,441.89	26,686.30	12,622.61	4,383.90	1,536.33				50,648.25
Modernizing turrets				18,294.40	5,254.21	18,379.30				41,927.91
Construction and repair	45,669.81	16,483.66	18,538.75	67,070.64	25,097.41	21,709.02				194,569.29
Steam machinery	31,081.00	10,792.07	7,597.33	16,767.15	6,245.33	9,150.13				81,633.01
Steam machinery, 1910									26,000.00	26,000.60
Total	100,663.44	35,422.39	69,171.45	123,483.49	43,634.37	61,786.45			26,000.00	460,161.59
Kentucky:										
Equipment of vessels (C. & R.)	82.02	25.59	17.13	494.84	176.69	2,280.11				3,076.38
Equipment of vessels (S. E.)	4,237.18	1,553.12	3,473.08	17,269.98	6,418.07	7,188.19				40,139.62
Ordnance and ordnance stores	2,435.31	1,166.10	275.84	13,309.07	6,900.65	5,166.39				28,352.76
Modernizing turrets				18,294.43	5,254.21	16,285.94				39,834.58
Construction and repair	67,141.61	26,927.95	24,743.88	93,549.39	36,733.90	37,062.89	$62.76	$36.60		286,258.88
Steam machinery	19,640.30	10,146.06	4,801.60	21,289.79	9,860.85	10,626.85				75,715.45
Equipment of vessels (C.& R.), 1910			1,676.00							1,676.60
Steam machinery, 1910									19,914.60	19,914.60
Total	93,536.42	39,818.82	34,987.53	164,157.50	64,443.17	78,010.37	62.76	36.60	19,914.60	494,967.77
Lamson:										
Equipment of vessels (C. & R.)				2.00	.60	4.35				6.95
Equipment of vessels (S. E.)	222.40	71.80	55.63	659.93	204.76	354.19				1,568.71
Ordnance and ordnance stores	48.22	21.70	4.95							74.87
Construction and repair	1,251.51	559.56	516.01	2,451.17	1,021.82	705.08				6,505.15
Steam machinery	5,755.79	3,141.42	6,806.21	4,445.42	2,514.28	1,175.71				23,838.83
Total	7,277.92	3,794.48	7,382.80	7,558.52	3,741.46	2,239.33				31,994.51
Lancaster:										
Construction and repair	297.05	114.13	67.60							478.78
Steam machinery	338.16	164.44	90.99							593.59
Total	635.21	278.57	158.59							1,072.37

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Lawrence:											
Equipment of vessels (C. & R.)	$71.94	$26.39	$57.23								$155.56
Equipment of vessels (S. E.)	8.32	3.74	6.44	$16.34	$8.76	$7.96					51.56
Construction and repair	1,474.30	570.81	683.55	230.87	96.39	49.39	$346.86	$188.09	$135.13		3,775.39
Steam machinery	2,743.44	1,502.68	3,153.34	26.11	14.32	2.90					7,442.79
Total	4,298.00	2,103.62	3,900.56	273.32	119.47	60.25	346.86	188.09	135.13		11,425.30
Lebanon:											
Equipment of vessels (C. & R.)	59.28	21.34	237.78								318.40
Equipment of vessels (S. E.)	2.98	1.04		23.92	7.88	47.40					83.22
Construction and repair	1,382.24	405.46	786.24	5,298.41	1,826.53	2,880.69	115.10	49.50	45.13		12,789.30
Steam machinery	973.62	480.68	717.18	649.93	317.90	322.13	5.52	1.66			3,468.62
Total	2,418.12	908.52	1,741.20	5,972.26	2,152.31	3,250.22	120.62	51.16	45.13		16,659.54
Leonidas:											
Equipment of vessels (C. & R.)	58.51	33.40	20.22								112.13
Equipment of vessels (S. E.)	38.00	14.06	13.18	168.89	90.81	25.09					350.03
Construction and repair	2,066.82	989.97	701.13	841.03	408.38	472.39	1,214.26	592.75	401.39		5,688.12
Steam machinery	1,479.47	693.49	652.80	492.32	240.22	165.89					3,724.19
Total	3,642.80	1,730.92	1,387.33	1,502.24	739.41	663.37	1,214.26	592.75	401.39		11,874.47
Louisiana:											
Equipment of vessels (C. & R.)	381.41	138.34	295.45	3.48	.95	396.50					1,216.13
Equipment of vessels (S. E.)	96.57	28.96	509.91	2,219.84	681.45	827.87					4,364.60
Ordnance and ordnance stores	300.50	117.83	58.88	2,348.51	992.30	443.10					4,261.12
Construction and repair	5,694.52	2,142.76	4,142.10	17,464.99	5,848.53	9,552.01	123.27	65.31	9.58		45,033.07
Steam machinery	10,705.22	4,884.84	8,026.15	1,076.61	514.14	395.82					25,601.78
Total	17 178.22	7,302.73	13,031.49	23,113.43	8,037.37	11,615.30	123.27	65.31	9.58		80,476.70
Macdonough:											
Equipment of vessels (S. E.)	220.14	60.04	341.14								621.32
Construction and repair	2,675.85	1,130.32	454.67	6.60	3.22		223.10	104.21	13.21		4,611.18
Steam machinery	3,113.61	962.73	83.75	57.96	17.40	424.50					4,659.95
Total	6,009.00	2,153.09	879.56	64.56	20.62	424.50	223.10	104.21	13.21		9,892.45

Machias:											
Equipment of vessels (S. E.)	20.60	6.18	1.04	....	....	....	....	....	....	....	27.82
Construction and repair	2,568.42	660.31	544.79	145.28	45.35	22.42	....	....	....	....	3,986.57
Steam machinery	749.30	222.17	226.94	115.66	28.12	12.37	....	....	....	....	1,354.56
Total	3,338.32	888.66	772.77	260.94	73.47	34.79	....	....	....	....	5,368.95
MacKenzie:											
Construction and repair	165.92	82.30	45.54	148.34	64.56	23.89	....	....	....	....	530.55
Maine:											
Equipment of vessels (C. & R.)	164.38	70.44	9.01	37.60	7.47	360.09	....	....	....	....	71.19
Equipment of vessels (S. E.)	190.36	51.81	11.45	2,526.50	628.76	1,143.39	....	....	....	....	4,552.27
Ordnance and ordnance stores	295.73	117.27	2,829.82	2,483.14	1,006.76	686.33	....	....	....	....	7,419.05
Modernizing turrets	....	....	....	1.42	.86	....	....	....	....	....	2.28
Construction and repair	4,715.23	1,465.39	2,014.11	9,990.01	4,116.51	6,105.20	458.83	193.74	38.94	....	29,097.96
Steam machinery	10,096.47	4,068.85	2,858.90	2,139.84	760.57	616.39	....	....	....	$15.32	20,556.34
Total	15,462.17	5,773.76	7,723.29	17,178.51	6,520.93	8,191.22	458.83	193.74	38.94	15.32	61,556.71
Manila:											
Construction and repair	155.95	46.79	81.75	....	....	....	....	....	....	....	284.49
Manley:											
Construction and repair	486.29	144.82	43.26	....	....	....	....	....	....	....	674.37
Steam machinery	925.52	429.14	365.55	....	....	....	....	....	....	....	1,720.21
Total	1,411.81	573.96	408.81	....	....	....	....	....	....	....	2,394.58
Marblehead:											
Equipment of vessels (S. E.)	5.33	2.75	.96	....	....	....	....	....	....	....	9.04
Construction and repair	564.85	329.18	320.52	....	....	....	....	....	....	....	1,214.55
Steam machinery	2,703.71	1,833.32	548.55	36.36	29.20	7.68	....	....	....	....	5,158.82
Total	3,273.89	2,165.25	870.03	36.36	29.20	7.68	....	....	....	....	6,382.41
Marietta:											
Equipment of vessels (C. & R.)	58.94	13.76	16.09	3.76	1.50	14.12	....	....	....	....	108.17
Equipment of vessels (S. E.)	544.88	204.60	27.24	346.27	97.04	259.71	....	....	....	....	1,479.74
Construction and repair	1,374.58	390.97	260.02	1,020.91	386.57	280.46	....	....	....	85.86	3,799.37
Steam machinery	2,659.38	1,018.39	2,616.11	155.42	37.29	31.51	....	....	....	102.40	6,620.50
Total	4,637.78	1,627.72	2,919.46	1,526.36	522.40	585.80	....	....	....	188.26	12,007.78
Mars:											
Equipment of vessels (C. & R.)	320.52	64.84	71.87	650.59	218.12	1,295.22	....	....	....	....	2.621.16
Equipment of vessels (S. E.)	417.10	177.17	24.22	374.59	115.78	185.42	....	....	....	....	1,294.28
Construction and repair	3,779.20	1,503.16	1,524.96	6,219.03	2,253.91	1,917.02	157.04	100.68	....	....	17,482.72
Steam machinery	3,194.29	1,529.42	1,774.05	2,141.21	1,032.92	1,533.82	....	....	....	....	11,205.71
Total	7,711.11	3,274.59	3,395.10	9,385.42	3,620.73	4,931.48	157.04	100.68	27.72	....	32,603.87

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Maryland:											
Equipment of vessels (C. & R.)	$149.01	$49.54	$71.81								$270.36
Equipment of vessels (S. E.)	1,231.38	527.73	1,504.32	$2,298.39	$922,95	$1,709.35					8,194.12
Ordnance and ordnance stores				24.94	11.94	3.50					40.38
Construction and repair	5,517.03	2,276.25	4,111.34	8,910.71	3,156.38	3,881.00	$120.54	$58.70	$38.18		28,070.13
Steam machinery	14,395.42	6,986.68	25,865.64	29,260.07	13,245.26	12,677.48					102,430.55
Total	21,292.84	9,840.20	31,553.11	40,494.11	17,336.53	18,271.33	120.54	58.70	38.18		139,005.54
Massachusetts:											
Equipment of vessels (C. & R.)	213.68	92.46	120.08								426.22
Equipment of vessels (S. E.)				14.28	7.14	8.02					29.44
Construction and repair	682.17	167.42	780.15	1,511.32	489.45	530.20					4,160.71
Steam machinery	595.32	229.96	324.80								1,150.08
Total	1,491.17	489.84	1,225.08	1,525.60	496.59	538.22					5,766.45
Massasoit:											
Construction and repair	1,485.95	4.48	395.25	48.06		63.25					1,996.99
Steam machinery	661.09	56.56	308.72								1,026.37
Total	2,147.04	61.04	703.97	48.06		63.25					3,023.36
Mayflower:											
Equipment of vessels (C. & R.)	91.86	24.86	24.07	6.00	2.00						148.79
Equipment of vessels (S. E.)	381.48	79.41	166.82								627.71
Construction and repair	2,777.17	851.19	990.93	4,768.45	1,765.79	1,921.51	2,050.36	1,160.15	583.33		16,868.88
Steam machinery	2,983.61	867.05	22,147.84	2,463.49	862.14	3,673.12					32,997.25
Total	6,234.12	1,822.51	23,329.66	7,237.94	2,629.93	5,594.63	2,050.36	1,160.15	583.33		50,642.63
Mayrant:											
Equipment of vessels (C. & R.)				48.16	24.08	27.64					99.88
Equipment of vessels (S. E.)	111.00	37.91	17.67	10.28	2.06						178.92
Construction and repair	433.00	194.36	256.13	5.25	1.56	48.51	937.69	410.89	234.57		2,521.96

Steam machinery	442.07	172.86	153.28	53.14	24.83	.41					846.59
Steam machinery, 1911			*15.89*								*15.89*
Total	986.07	405.13	411.19	116.83	52.53	76.56	937.69	410.89	234.57		3,631.46
McCall:											
Equipment of vessel (C. & R.)	28.40	7.10	11.78	27.96	9.68	7.81					92.73
Equipment of vessels (S. E.)	211.48	53.01	27.01	4.32	.86	.89	320.16	76.06	98.13		791.92
Construction and repair	2,928.36	936.11	972.41	442.07	162.93	110.22	694.18	270.14	51.65		6,563.07
Steam machinery	1,665.46	424.62	159.06	33.78	11.44	71.57	545.55	198.85	102.39		3,212.72
Total	4,828.70	1,420.84	1,170.26	508.13	184.91	190.49	1,559.89	545.05	252.17		10,660.44
McKee:											
Equipment of vessels (S. E.)	3.12	.62									3.74
Steam machinery	24.46	6.08									30.54
Total	27.58	6.70									34.28
Miantonomah:											
Ordnance and ordnance stores			1,116.00								1,116.00
Construction and repair	230.14	80.55	15.00								325.69
Total	230.14	80.55	1,131.00								1,441.69
Michigan:											
Equipment of vessels (C. & R.)	19.12	6.53	1.60								27.25
Equipment of vessels (S. E.)	355.42	134.29	347.06	1,183.58	363.30	2,279.83					4,663.48
Ordnance and ordnance stores	16.36	4.55	39.30	111.74	50.77	10,396.97					10,619.69
Construction and repair	1,631.93	590.12	991.31	22,763.26	8,446.29	19,486.69	663.01	231.50	162.25		54,966.36
Steam machinery	2,723.16	1,114.65	3,344.30	16,763.32	6,069.28	11,096.66					41,111.37
Equipment of vessels (Nav.) 1911										$7,802.00	7,802.00
Total	4,745.99	1,850.14	4,723.57	40,821.90	14,929.64	43,260.15	663.01	231.50	162.25	7,802.00	119,190.15
Milwaukee:											
Equipment of vessels (C. & R.)	38.57	23.14	6.44			184.96					253.11
Equipment of vessels (S. E.)	81.56	41.01	7.51	160.86	88.78	8,129.47					8,509.19
Ordnance and ordnance stores				60.22	27.68	*6.54*					81.36
Construction and repair	5,708.71	3,557.12	1,080.36	4,360.61	2,933.51	2,355.55					19,995.86
Steam machinery	3,470.98	2,522.89	507.34	1,141.44	673.54	887.91					9,204.10
Total	9,299.82	6,144.16	1,601.65	5,723.13	3,723.51	11,551.35					38,043.62
Mindoro:											
Construction and repair	1.44	1.01									2.45
Steam machinery	7.22	3.74									10.96
Total	8.66	4.75									13.41

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Minnesota:											
Equipment of vessels (C. & R.)...	$164.90	$86.58	$45.49	$468.21	$259.12	$320.50	....	....	....	....	$1,344.80
Equipment of vessels (S. E.)......	189.48	85.13	526.50	8,257.00	3,759.44	7,104.08	....	....	....	....	19,921.63
Ordnance and ordnance stores....	414.58	209.88	329.70	3,241.44	1,955.25	360.15	....	....	....	$0.60	6,511.60
Construction and repair..........	10,353.06	4,204.18	7,275.37	18,711.37	9,076.66	8,908.15	$81.16	$50.69	$18.96	....	58,679.60
Steam machinery................	8,505.83	3,686.69	17,264.25	907.53	382.49	643.63	....	....	....	143.40	31,533.82
Total..........................	19,627.85	8,272.46	25,441.31	31,585.55	15,432.96	17,336.51	81.16	50.69	18.96	144.00	117,991.45
Mississippi:											
Equipment of vessels (Nav.)......	19.60	7.56	....	....	....	....	....	....	....	....	27.16
Equipment of vessels (C. & R.)...	170.34	65.27	112.61	87.68	43.24	172.89	....	....	....	....	652.03
Equipment of vessels (S. E.).....	167.82	60.89	38.80	4,489.30	1,407.39	4,004.64	....	....	....	....	10,168.84
Ordnance and ordnance stores....	242.36	84.07	535.95	3,188.92	1,246.12	1,495.99	....	....	....	....	6,793.41
Construction and repair..........	7,284.10	2,421.45	4,896.40	8,511.21	3,284.40	3,864.14	....	....	....	....	30,261.70
Steam machinery................	5,746.42	1,891.41	3,078.52	4,682.81	1,475.54	17,263.36	....	....	....	99.77	34,237.83
Total..........................	13,630.64	4,530.65	8,662.28	20,959.92	7,456.69	26,801.02	....	....	....	99.77	82,140.97
Missouri:											
Equipment of vessels (C. & R.)...	206.00	86.17	320.51	....	....	14.56	....	....	....	....	627.24
Equipment of vessels (S. E.).....	929.18	338.47	873.15	211.97	87.01	731.85	....	....	....	....	3,171.63
Ordnance and ordnance stores....	1,395.50	627.03	372.14	345.43	191.28	93.82	....	....	....	....	3,025.20
Modernizing turrets..............	....	....	....	20.66	8.42	21.50	....	....	....	....	50.58
Construction and repair..........	2,315.23	911.82	2,711.86	2,229.97	1,174.66	1,419.05	....	....	....	....	10,762.59
Steam machinery................	2,160.36	790.48	1,798.19	1,077.80	337.21	471.30	....	....	....	....	6,635.34
Total..........................	7,006.27	2,753.97	6,075.85	3,885.83	1,798.58	2,752.08	....	....	....	....	24,272.58
Modoc:											
Construction and repair..........	228.74	89.82	180.75	....	....	....	93.50	19.47	46.44	....	658.72
Steam machinery................	230.98	87.64	358.98	37.14	5.82	3,599.72	....	....	....	....	4,320.28
Total..........................	459.72	177.46	539.73	37.14	5.82	3,599.72	93.50	19.47	46.44	....	4,979.00

Mohawk:										
Equipment of vessels (C. & R.)				4.76	1.60	12.22				18.58
Equipment of vessels (S. E.)						13.50				13.50
Construction and repair	736.14	279.80	236.36							1,252.30
Steam machinery	500.81	269.46	124.69							894.96
Total	1,236.95	549.26	361.05	4.76	1.60	25.72				2,179.34
Mohican:										
Construction and repair	282.56	151.79	367.34							801.69
Steam machinery	117.44	71.80	391.39							580.63
Total	400.00	223.59	758.73							1,382.32
Monadnock:										
Equipment of vessels (C. & R.)									10.80	10.80
Equipment of vessels (S. E.)	336.51	199.35	240.70	2.58	1.42					780.56
Ordnance and ordnance stores				24.70	16.96	5.06				46.72
Construction and repair	374.86	206.27	682.82	642.55	477.84	210.30				2,594.64
Steam machinery	1,899.63	1,134.34	526.21	60.71	33.64	12.47				3,667.00
Construction and repair, 1911	18.52	14.90								33.42
Steam machinery, 1911	*18.52*	*14.90*								*33.42*
Total	2,611.00	1,539.96	1,449.73	730.54	529.86	227.83			10.80	7,099.72
Monaghan:										
Equipment of vessels (S. E.)	214.59	96.66	63.23	150.82	77.05	*100.15*				502.20
Construction and repair	687.94	282.90	310.72	717.07	233.72	194.54	1,278.04	370.87	95.95		4,171.75
Steam machinery	1,006.07	465.44	158.24	*238.93*	*74.13*	*11.44*				1,305.25
Steam machinery, 1911			*.01*							*.01*
Total	1,908.60	845.00	532.18	628.96	236.64	82.95	1,278.04	370.87	95.95		5,979.19
Montana:										
Equipment of vessels (C. & R.)	550.48	118.91	571.34	401.89	146.59	197.01				1,986.22
Equipment of vessles (S. E.)	40.60	9.68	1.84	2,149.37	727.85	819.47				3,748.81
Ordnance and ordnance stores				2,773.07	1,307.62	947.83				5,028.52
Modernizing turrets				72.06	28.47	3,820.28				3,920.81
Construction and repair	7,151.41	2,684.16	2,447.53	22,791.38	8,435.95	11,597.70	6.86	2.75			55,117.74
Steam machinery	7,956.48	2,809.42	22,444.75	25,788.35	9,093.76	9,174.29				48.50	77,315.55
Total	15,698.97	5,622.17	25,465.46	53,976.12	19,740.24	26,556.58	6.86	2.75		48.50	147,117.65
Monterey:										
Equipment of vessels (C. & R.)	38.95	31.90	77.22								148.07
Equipment of vessels (S. E.)	68.60	58.01	20.53	266.54	120.70	249.81					784.19
Ordnance and ordnance stores	647.34	162.62	319.30	89.28	22.41	*.20*					1,240.75
Construction and repair	840.51	488.60	533.08	571.92	373.66	286.91					3,094.68
Steam machinery	534.33	325.95	206.92							775.32	1,842.52
Total	2,129.73	1,067.08	1,157.05	927.74	516.77	536.52				775.32	7,110.21

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Montgomery:											
Equipment of vessels (S. E.)	$51.88	$23.35									$75.23
Ordnance and ordnance stores	296.62	191.74	$6.14								494.50
Construction and repair	312.77	108.29	1,463.82	$408.96	$176.44	$300.24	$156.88	$127.09	$47.62		3,102.11
Steam machinery	372.42	172.49	112.04	67.77	29.38	30.26					784.36
Total	1,033.69	495.87	1,582.00	476.73	205.82	330.50	156.88	127.09	47.62		4,456.20
Morris:											
Equipment of vessels (S. E.)	284.92	63.83	129.36	21.54	4.36						504.01
Construction and repair	2,502.68	849.97	430.97				339.16	10.59	61.89		4,195.26
Steam machinery	4,797.56	1,593.08	1,434.72	15.16	3.04	106.82					7,950.38
Total	7,585.16	2,506.88	1,995.05	36.70	7.40	106.82	339.16	10.59	61.89		12,649.65
Nanshan:											
Equipment of vessels (C. & R.)	8.48	9.56	4.92								22.96
Construction and repair	20.50	13.12								$343.68	377.30
Steam machinery	506.26	424.09	261.51							636.97	1,828.83
Total	535.24	446.77	266.43							980.65	2,229.09
Narkeeta:											
Equipment of vessels (C. & R.)	2.44	.63									3.07
Equipment of vessels (S. E.)	22.08	5.24	5.58								32.90
Construction and repair	364.00	121.82	134.94	905.92	316.73	216.46					2,059.87
Steam machinery	2,420.90	629.01	755.25	1,333.73	355.36	232.25					5,726.50
Total	2,809.42	756.70	895.77	2,239.65	672.09	448.71					7,822.34
Nashville:											
Equipment of vessels (C. & R.)	86.44	42.44	39.25	164.95	81.93	34.68					449.69
Equipment of vessels (S. E.)	997.14	339.21	722.71	1,557.41	555.68	1,540.22	8.75	2.92			5,724.04
Construction and repair	5,237.39	2,307.40	2,703.18	2,847.10	1,502.38	894.70	43.65	21.59			15,557.39
Steam machinery	4,291.72	1,744.81	1,747.43	2,660.33	1,261.56	1,334.17	10.63	5.32	1.81		13,057.78
Steam machinery, 1911										41.63	41.63
Total	10,612.69	4,433.86	5,212.57	7,229.79	3,401.55	3,803.77	63.03	29.83	1.81	41.63	34,830.53

Navajo:											
Equipment of vessels (C. & R.)				7.17	2.87	10.86					20.90
Equipment of vessels (S. E.)				50.62	22.78	59.85					133.25
Construction and repair	235.82	102.55	162.74	582.47	295.66	125.15					1,504.39
Steam machinery	163.64	87.22	55.58	107.42	52.91	42.95				470.00	979.72
Total	399.46	189.77	218.32	747.68	374.22	238.81				470.00	2,638.26
Nebraska:											
Equipment of vessels (Nav.)				52.30	17.43	.28					70.01
Equipment of vessels (C. & R.)	301.99	95.14	92.23	40.35	15.63	207.92					753.26
Equipment of vessels (S. E.)	3,579.75	1,661.94	528.63	4,618.44	1,500.69	6,631.85					18,521.30
Ordnance and ordnance stores	8,188.69	3,515.16	1,132.32	924.77	303.75	79.73	299.80	144.13	28.41	4,890.43	19,507.19
Construction and repair	21,723.42	7,724.50	11,665.23	27,443.38	10,300.17	11,277.93					90,134.63
Steam machinery	9,232.71	4,090.62	1,945.68	2,880.52	1,172.80	1,022.69				209.50	20,554.52
Total	43,026.56	17,087.36	15,364.09	35,959.76	13,310.47	19,220.40	299.80	144.13	28.41	5,099.93	149,540.91
Neptune:											
Equipment of vessels (S. E.)	103.38	49.73	61.18								214.29
Construction and repair	727.73	310.70	80.64	8.52	7.49	.92	157.02	46.40	47.93	955.00	2,342.35
Steam machinery	1,954.87	1,333.46	285.97								3,574.30
Total	2,785.98	1,693.89	427.79	8.52	7.49	.92	157.02	46.40	47.93	955.00	6,130.94
Nero:											
Equipment of vessels (C. & R.)	708.97	153.19	273.46	1.00	.65	350.96					1,488.23
Equipment of vessels (S. E.)	1,033.66	272.76	309.06	442.27	99.77	321.14					2,478.66
Construction and repair	18,500.36	5,056.80	4,613.66	1,664.35	738.23	513.48	3,586.54	1,115.91	1,207.52		36,996.85
Steam machinery	6,330.01	2,231.26	2,109.26	122.12	63.86	84.72					10,941.23
Equipment of vessels (C. & R.), 1911			*3.46*								*3.46*
Equipment of vessels (S. E.), 1911			*8.38*								*8.38*
Construction and repair, 1911			*1.36*								*1.36*
Steam machinery, 1911			*255.00*								*255.00*
Total	26,573.00	7,714.01	7,037.24	2,229.74	902.51	1,270.30	3,586.54	1,115.91	1,207.52		51,636.77
Newark:											
Construction and repair	167.84		26.79								194.63
New Hampshire:											
Equipment of vessels (C. & R.)	480.71	152.30	197.84								830.85
Equipment of vessels (S. E.)	44.46	12.77	8.68	581.11	179.32	425.42					1,251.76
Ordnance and ordnance stores	723.87	312.77	99.59	681.16	311.69	27.17					2,156.25
Construction and repair	17,601.90	5,536.64	7,201.23	15,782.10	5,182.93	9,236.24				511.20	61,052.24
Steam machinery	2,618.81	805.32	1,479.84	265.35	81.49	51.78					5,302.59
Total	21,469.75	6,819.80	8,987.18	17,309.72	5,755.43	9,740.61				511.20	70,593.69

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
New Jersey:											
Equipment of vessels (C. & R.)	$23.56	$11.60	$132.92			$39.05					$129.03
Equipment of vessels (S. E.)	2,022.24	781.44	770.77	$1,887.11	$679.62	1,224.48					7,365.66
Ordnance and ordnance stores	514.22	224.99	32.78	1,517.85	679.80	3,001.39					5,971.03
Modernizing turrets				5.32	1.77	139,308.00					139,315.09
Construction and repair	2,301.88	995.54	1,945.51	21,198.20	10,398.02	3,615.78					40,454.93
Steam machinery	2,765.64	1,013.32	3,568.62	407.14	178.33	79.38					8,012.43
Total	7,627.54	3,026.89	6,450.60	25,015.62	11,937.54	147,189.98					201,248.17
New Orleans:											
Construction and repair	181.15	73.01	206.01								460.17
Steam machinery	36.89	19.31	19.66								75.86
Total	218.04	92.32	225.67								536.03
Newport:											
Equipment of vessels (C. & R.)	10.76	6.46	9.90	9.52	2.86						39.50
Equipment of vessels (S. E.)	23.70	8.13	2.19								34.02
Construction and repair	542.81	218.20	162.15	31.20	12.48	2.67					969.51
Steam machinery	77.20	22.83	6.50								106.53
Total	654.47	255.62	180.74	40.72	15.34	2.67					1,149.56
North Carolina:											
Equipment of vessels (C. & R.)	567.15	169.84	296.38	127.81	42.07	230.14					1,433.39
Equipment of vessels (S. E.)	193.09	81.94	135.95	445.81	153.85	194.59					1,205.23
Ordnance and ordnance stores	6.56	1.31		1,629.20	887.03	509.46					3,033.56
Modernizing turrets				50.49	22.19	3,819.56					3,892.24
Construction and repair	4,554.10	1,850.49	3,574.92	12,066.36	6,056.27	8,833.73					36,935.87
Steam machinery	3,046.59	1,178.11	2,178.25	10,809.89	5,631.16	9,474.18					32,317.68
Total	8,367.49	3,281.69	6,185.50	25,129.06	12,792.57	23,061.66					78,817.97
North Dakota:											
Equipment of vessels (C. & R.)	33.40	9.35	9.20	27.16	7.58	9.26					95.95
Equipment of vessels (S. E.)	33.00	8.04	5.80	491.42	126.90	528.19					1,193.35
Ordnance and ordnance stores	35.43	10.05	15.73	64.44	35.14	13,259.51					13,420.30

Construction and repair	1,334.75	477.28	1,345.37	8,643.91	2,883.98	3,762.99	$1.64	$0.65			18,450.57
Steam machinery	7,085.38	1,813.96	1,787.02	77.98	188.42	754.56					11,707.32
Ordnance and ordnance stores, 1911										$4,823.21	4,823.21
Construction and repair, 1911						*68.06*					*68.06*
Steam machinery, 1911			*1.67*								*1.67*
Total	8,521.96	2,318.68	3,161.45	9,304.91	3,242.02	18,246.45	1.64	.65		4,823.21	49,620.97
Ohio:											
Equipment of vessels (C. & R.)	116.02	25.52	562.96			482.00					1,186.50
Equipment of vessels (S. E.)	186.47	53.08	57.74	196.62	64.66	48.70				6.00	613.27
Ordnance and ordnance stores	458.01	140.43	33.38	38.41	7.91	386.56					1,064.70
Modernizing turrets				10.48	2.09						12.57
Construction and repair	2,360.54	797.53	1,063.42	272.69	115.86	12,251.77	9.80	3.92			16,875.53
Steam machinery	422.83	137.97	306.32	103.66	61.08	16.94					1,048.80
Equipment of vessels (S. E.), 1911			*7.16*								*7.16*
Construction and repair, 1911			*35.00*								*35.00*
Total	3,543.87	1,154.53	1,981.66	621.86	251.60	13,185.97	9.80	3.92		6.00	20,759.21
Olympia:											
Equipment of vessels (S. E.)	11.72	5.27	4.49								21.48
Construction and repair	779.93	362.55	351.71								1,494.19
Steam machinery	654.54	283.79	496.13								1,434.46
Total	1,446.19	651.61	852.33								2,950.13
Oneida:											
Equipment of vessels (S. E.)	55.35		46.83								102.18
Construction and repair	331.94	161.49	104.23	165.95	67.61	40.60					871.82
Steam machinery	992.68	208.73	300.11	155.97	28.46	12.77					1,698.72
Total	1,379.97	370.22	451.17	321.92	96.07	53.37					2,672.72
Oregon:											
Equipment of vessels (C. & R.)	6.89	3.45	7.51	4.72	2.12	3,401.55					3,426.24
Equipment of vessels (S. E.)	226.91	109.94	*29.03*	665.06	301.52	2,630.35					3,904.75
Ordnance and ordnance stores	872.39	275.96	516.58								1,664.93
Construction and repair	4,544.69	1,633.96	2,260.57	2,574.28	1,219.52	5,100.97					17,333.99
Steam machinery	369.19	217.63	22.69	76.52	31.34	12.53					729.90
Total	6,020.07	2,240.94	2,778.32	3,320.58	1,554.50	11,145.40					27,059.81
Osceola:											
Construction and repair	461.62		139.49	324.65		149.64	115.05		$11.83		1,202.28
Steam machinery	826.15		119.72								945.87
Total	1,287.77		259.21	324.65		149.64	115.05		11.83		2,148.15

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Ozark:											
Ordnance and ordnance stores						$10.60					$10.60
Construction and repair	$536.41	$271.86	$322.30	$101.47	$59.52	65.13					1,356.69
Steam machinery	90.43	53.77	14.89								159.09
Total	626.84	325.63	337.19	101.47	59.52	54.53					1,505.18
Paducah:											
Equipment of vessels (C. & R.)	62.48	11.92	26.43								100.83
Equipment of vessels (S. E.)	257.54	63.23	8.12	8.56	1.28	4.26					342.99
Ordnance and ordnance stores				17.12	3.30						20.42
Construction and repair	1,637.95	425.84	655.90	594.62	174.48	238.94					3,727.73
Steam machinery	3,942.47	1,182.58	3,863.17	5.40	1.83	3.10					8,998.55
Total	5,900.44	1,683.57	4,553.62	625.70	180.89	246.30					13,190.52
Pampagna:											
Equipment of vessels (C. & R.)	10.80	12.96	22.17	5.28	2.69	13.50					67.40
Construction and repair	503.40	340.66	139.97	146.23	161.19	108.12					1,399.57
Steam machinery	197.39	182.41	45.20								425.00
Total	711.59	536.03	207.34	151.51	163.88	121.62					1,891.97
Panay:											
Construction and repair	191.94	107.70	65.07								364.71
Steam machinery	124.00	53.19	21.70								198.89
Total	315.94	160.89	86.77								563.60
Panther:											
Equipment of vessels (S. E.)	17.76	4.98		90.04	28.83	29.41					171.02
Construction and repair	4,141.03	1,495.44	939.92	2,751.14	1,080.49	1,216.63					11,624.65
Steam machinery	1,698.67	614.49	1,204.37	2,089.33	694.35	1,862.48					8,163.69
Total	5,857.46	2,114.91	2,144.29	4,930.51	1,803.67	3,108.52					19,959.36

Patapsco:											
Equipment of vessels (C. & R.)	22.08	4.86	44.36								71.30
Equipment of vessels (S. E.)	202.01	65.55	4.26	84.24	34.56	30.70					421.32
Construction and repair	2,224.65	782.15	870.26	1,008.68	755.32	250.57	$13.76	$4.55	$2.56		5,912.50
Steam machinery	3,031.53	1,220.57	474.18	168.95	52.81	21.68					4,969.72
Total	5,480.27	2,073.13	1,393.06	1,261.87	842.69	302.95	13.76	4.55	2.56		11,374.84
Patterson:											
Equipment of vessels (S. E.)				247.11	98.37	157.55					503.03
Construction and repair	252.59	108.25	235.68								596.52
Steam machinery	15.80	6.45	1.77	13.66	8.95	12.40					59.03
Total	268.39	114.70	237.45	260.77	107.32	169.95					1,158.58
Patuxent:											
Equipment of vessels (S. E.)	117.96	67.88	2.02	41.20	20.85	21.75					271.66
Construction and repair	1,774.81	817.01	929.47	259.39	98.59	12.31					3,891.58
Steam machinery	996.08	551.43	255.53	23.20	11.99	775.00					2,613.23
Total	2,888.85	1,436.32	1,187.02	323.79	131.43	809.06					6,776.47
Paulding:											
Equipment of vessels (S. E.)	131.26	35.61	17.21	9.76	1.78	2.60	56.16	11.24	12.21		277.83
Ordnance and ordnance stores	15.94	7.97									23.91
Construction and repair	2,051.16	695.83	680.41	443.59	198.54	103.35					4,172.88
Steam machinery	601.45	214.09	135.42	109.01	39.99	109.25	381.46	133.24	113.80		1,837.71
Total	2,799.81	953.50	833.04	562.36	240.31	215.20	437.62	144.48	126.01		6,312.33
Paul Jones:											
Equipment of vessels (C. & R.)	18.65	8.56	1.46								28.67
Equipment of vessels (S. E.)	163.34	73.65	132.96	49.71	22.41	17.44					459.51
Construction and repair	1,877.50	1,007.40	718.12	495.47	266.16	118.12					4,482.77
Steam machinery	9,194.34	6,600.63	12,412.40	925.29	572.62	530.06					30,235.34
Total	11,253.83	7,690.24	13,264.94	1,470.47	861.19	665.62					35,206.29
Pawnee:											
Equipment of vessels (C. & R.)	18.32	5.55	3.41								27.28
Equipment of vessels (S. E.)	7.60	1.55					88.44	30.44	35.38		163.41
Construction and repair	1,520.67	484.81	574.19	83.35	32.43	18.20	1,230.38	644.13	484.61		5,072.47
Steam machinery	1,316.85	471.20	435.27								2,223.32
Total	2,803.44	963.11	1,012.87	83.35	32.43	18.20	1,318.82	674.57	519.99		7,486.78
Pawtucket:											
Equipment of vessels (C. & R.)	2.88	1.15	.24								4.27
Construction and repair	1,184.43	454.85	230.35	44.66	19.57	.97					1,934.83
Steam machinery	173.96	99.53	24.50								297.99
Total	1,361.27	555.53	255.09	44.66	19.57	.97					2,237.09

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Penacook:											
Equipment of vessels (C. & R.)	$9.07	$1.50	$0.48								$11.05
Construction and repair	251.79	56.52	85.32	$59.51	$20.68	$718.44					1,192.26
Steam machinery	567.88	176.10	566.18								1,310.16
Total	828.74	234.12	651.98	59.51	20.68	718.44					2,513.47
Pennsylvania (Pittsburgh):											
Equipment of vessels (C. & R.)	391.94	167.94	193.33	435.76	225.89	1,076.45					2,491.31
Equipment of vessels (S. E.)	2,311.07	1,101.67	957.03	18,281.34	8,310.74	12,805.67					43,767.52
Ordnance and ordnance stores	682.21	320.50	73.03	1,243.98	606.86	112.32					3,038.90
Construction and repair	9,123.00	4,013.54	2,911.84	35,105.84	15,547.16	11,621.38					78,322.76
Steam machinery	11,657.85	5,554.59	3,109.54	37,840.28	15,300.33	32,297.63					105,760.22
Total	24,166.07	11,158.24	7,244.77	92,907.20	39,990.98	57,913.45					233,380.71
Pensacola:											
Equipment of vessels (C. & R.)	51.02	12.84									63.86
Equipment of vessels (S. E.)	6.48	2.92									9.40
Ordnance and ordnance stores	14.24	3.56									17.80
Construction and repair	171.93	41.87	.14								213.94
Steam machinery	136.08	58.23	5.52								199.83
Total	379.75	119.42	5.66								504.83
Pentucket:											
Equipment of vessels (S. E.)	154.96	55.52	1.95	11.24	2.96	3.93					230.56
Construction and repair	929.07	313.65	278.68								1,521.40
Steam machinery	402.56	121.48	63.09	39.80	11.82	63.07					701.82
Total	1,486.59	490.65	343.72	51.04	14.78	67.00					2,453.78
Peoria:											
Equipment of vessels (S. E.)	237.09	95.04	56.94								389.07
Ordnance and ordnance stores				10.52	2.63						13.15
Construction and repair	2,075.95	948.18	750.67	61.48	27.20	21.11	$33.76	$15.86	$0.33		3,934.54
Steam machinery	1,327.45	550.20	290.75								2,168.40
Total	3,640.49	1,593.42	1,098.36	72.00	29.83	21.11	33.76	15.86	.33		6,505.16

Perkins:											
Equipment of vessels (S. E.)	137.83	33.72	31.41	148.84	35.26	93.58					480.64
Construction and repair	2,229.69	783.76	647.80	1,672.84	547.32	476.03					6,357.44
Steam machinery	796.65	249.60	120.78	*1.74*	*4.09*	19.45					1,180.65
Steam machinery, 1911			*349.38*								*349.38*
Total	3.164.17	1,067.08	450.61	1,819.94	578.49	589.06					7,669.35
Perry:											
Equipment of vessels (C. & R.)			38.75								38.75
Equipment of vessels (S. E.)	31.95	17.79		239.11	112.55	1,027.17					1,428.57
Construction and repair	2,194.93	945.41	852.30	236.37	107.52	47.47					4,384.00
Steam machinery	12,304.36	6,571.18	10,778.34	1,438.39	816.76	455.93					32,364.96
Total	14,531.24	7,534.38	11,669.39	1,913.87	1,036.83	1,530.57					38,216.28
Petrel:											
Equipment of vessels (C. & R.)	38.28	8.42	15.02	56.36	26.37	43.38					187.83
Equipment of vessels (S. E.)	8.82	1.76		346.27	70.55	1,778.78					2,206.18
Construction and repair	1,024.95	269.62	559.21	818.89	247.54	416.90					3,337.11
Steam machinery	963.64	274.66	454.86	532.86	124.81	391.19					2,742.02
Total	2,035.69	554.46	1,029.09	1,754.38	469.27	2,630.25					8,473.14
Philadelphia:											
Equipment of vessels (C. & R.)	80.69	36.08	20.23								137.00
Equipment of vessels (S. E.)				762.14	417.34	499.79					1,679.27
Construction and repair			59.53	7,772.47	4,208.33	2,397.73					14,438.06
Steam machinery				133.65	58.70	*151.57*					40.78
Total	80.69	36.08	79.76	8,668.26	4,684.37	2,745.95					16,295.11
Piscataqua:											
Equipment of vessels (C. & R.)	12.65	7.59	35.88								56.12
Equipment of vessels (S. E.)	168.89	100.07	13.07	.92	.60						283.55
Construction and repair	5,368.43	3,764.05	2,006.61	442.45	270.81	218.00					12,070.35
Steam machinery	3,785.63	2,110.72	721.49	270.60	183.60	268.04					7,340.08
Total	9,335.60	5,982.43	2,777.05	713.97	455.01	486.04					19,750.10
Pompey:											
Equipment of vessels (C. & R.)										8.26	8.26
Equipment of vessels (S. E.)	9.11	43.44	34.02	25.15	22.06	347.75					481.53
Ordnance and ordnance stores	44.24	24.33	.29								68.86
Construction and repair	247.58	275.95	83.81	138.86	89.35	42.09					877.64
Steam machinery	594.05	295.82	1,062.74							919.06	2,871.67
Equipment of vessels (S. E.), 1911	*277.95*	*125.49*	*692.93*								*1,096.37*
Steam machinery, 1911	277.95	125.49	692.93								1,096.37
Total	894.98	639.54	1,180.86	164.01	111.41	389.84				927.32	4,307.96

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Pontiac:											
Equipment of vessels (C. & R.)	$2.96	$0.89	$2.40								$6.25
Equipment of vessels (S. E.)	196.54	92.68	9.18								298.40
Construction and repair	670.70	228.98	185.72								1,085.40
Steam machinery	678.02	261.78	212.54								1,152.34
Total	1,548.22	584.33	409.84								2,542.39
Porter:											
Equipment of vessels (S. E.)	2.88	.86									3.74
Construction and repair	387.51	136.55	42.98								567.04
Steam machinery	85.08	21.26	4.76								111.10
Total	475.47	158.67	47.74								681.88
Portsmouth:											
Construction and repair	13.24	3.35									16.59
Potomac:											
Equipment of vessels C. & R.)	30.28	17.92	33.22								81.42
Equipment of vessels (S. E.)	477.24	162.10	247.17	$6.76	$2.03	$3.45					898.75
Construction and repair	3,658.66	1,500.61	1,474.78	718.97	282.11	135.86					7,770.99
Steam machinery	4,868.69	1,806.26	2,905.48	12.48	3.74	3.50					9,600.15
Total	9,034.87	3,486.89	4,660.65	738.21	287.88	142.81					18,351.31
Powhatan:											
Equipment of vessels (S. E.)	187.77	68.28	34.48								290.53
Construction and repair	527.38	179.32	205.39								912.09
Steam machinery	328.37	122.30	63.06								513.73
Total	1,043.52	369.90	302.93								1,716.35
Prairie:											
Equipment of vessels (C. & R.)	34.28	13.32	36.10								83.70
Equipment of vessels (S. E.)	337.30	98.78	39. 3								475.31

Construction and repair	3,117.90	1,144.46	2,203.17	662.54	230.23	565.06					7,923.36
Steam machinery	4,192.10	1,330.72	1,945.72	36.24	11.33	2.14					7,518.25
Total	7,681.58	2,587.28	4,224.22	698.78	241.56	567.20					16,000.62
Preble:											
Equipment of vessels (C. & R.)	2.00	.80									2.80
Equipment of vessels (S. E.)	62.67	28.21	8.70	51.69	23.26	919.83					1,094.36
Ordnance and ordnance stores										$65.45	65.45
Construction and repair	1,450.78	650.02	719.01	71.29	26.14	5.76					2,923.00
Steam machinery	6,195.14	3,179.22	5,962.98	412.30	205.28	230.86				42.03	16,227.81
Total	7,710.59	3,858.25	6,690.69	535.28	254.68	1,156.45				107.48	20,313.42
Preston:											
Equipment of vessels (S. E.)	66.96	29.95	21.47	543.20	173.94	338.24					1,173.76
Construction and repair	743.76	368.30	390.27	1,050.99	354.66	317.66					3,225.64
Steam machinery	1,936.58	957.87	382.06	2,882.24	1,356.10	1,542.60					9,057.45
Total	2,747.30	1,356.12	793.80	4,476.43	1,884.70	2,198.50					13,456.85
Princeton:											
Equipment of vessels (C. & R.)	120.92	45.45	51.82								218.19
Equipment of vessels (S. E.)	306.69	128.18	81.72	586.71	195.77	248.67					1,547.74
Ordnance and ordnance stores	47.58	21.55	.15	25.48	11.47						106.23
Construction and repair	2,974.91	1,049.09	758.81	1,013.19	362.37	656.89					6,815.26
Steam machinery	1,485.63	604.21	756.47	337.34	137.40	89.19					3,410.24
Total	4,935.73	1,848.48	1,648.97	1,962.72	707.01	994.75					12,097.66
Prometheus:											
Equipment of vessels (C. & R.)	12.64	5.06									17.70
Equipment of vessels (S. E.)	128.38	62.18	2.98			750.00					943.54
Construction and repair	2,256.03	939.69	2,038.08	195.29	112.56	591.71	$192.30	$97.27	$30.84		6,453.77
Steam machinery	1,261.17	567.15	349.33	123.11	64.82	47.97					2,413.55
Total	3,658.22	1,574.08	2,390.39	318.40	177.38	1,389.68	192.30	97.27	30.84		9,828.56
Puritan:											
Equipment of vessels (S. E.)	534.69	261.21	*56.07*								739.83
Ordnance and ordnance stores	1,573.12	852.65	101.92								2,527.69
Construction and repair	1,349.16	511.48	173.25				26.67	8.55			2,069.11
Steam machinery	6,506.12	3,106.90	1,489.35								11,102.37
Total	9,963.09	4,732.24	1,708.45				26.67	8.55			16,439.00
Quiros:											
Equipment of vessels (S. E.)	98.58	60.72	822.91								982.21
Construction and repair	174.00	98.29	216.60	60.83	48.49	9.09					606.70
Steam machinery	310.80	193.57	274.61								778.98
Total	583.38	352.58	1,313.52	60.83	48.49	9.09					2,367.89

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Change and additions.			Casualties,			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect,	Material.		
Rainbow:											
Equipment of vessels (C. & R.)										$263.44	$263.44
Construction and repair	$2,107.44	$1,385.62	$999.94							1,245.18	5,738.18
Steam machinery	1,626.66	737.46	1,090.79							71.96	3,526.87
Total	3,734.10	2,123.08	2,090.73							1,580.58	9,528.49
Raleigh:											
Equipment of vessels (S. E.)				$52.48	$21.95	$302.68					377.11
Construction and repair	515.10	230.56	384.31	955.54	509.43	718.39					3,313.33
Steam machinery	41.45	30.62	12.94	111.28	71.91	8.79					276.99
Total	556.55	261.18	397.25	1,119.30	603.29	1,029.86					3,967.43
Ranger:											
Equipment of vessels (C. & R.)	17.77	8.88	7.05								33.70
Equipment of vessels (S. E.)							$96.14	$45.88	$41.25		183.27
Construction and repair	1,871.78	877.23	777.31	89.12	53.03	19.38					3,687.85
Steam machinery	2,648.51	1,108.41	403.01	182.94	91.92	274.93					4,709.72
Total	4,538.06	1,994.52	1,187.37	272.06	144.95	294.31	96.14	45.88	41.25		8,614.54
Rapido:											
Construction and repair	330.37	183.39	325.90								839.66
Steam machinery	106.15	56.94	3.88								166.97
Total	436.52	240.33	329.78								1,006.63
Reid:											
Equipment of vessels (C. & R.)				2.00	.60	4.35					6.95
Equipment of vessels (S. E.)	48.50	26.14	16.77	655.38	206.53	374.12					1,327.44
Construction and repair	906.51	487.87	506.50	1,462.48	463.36	305.13					4,131.85
Steam machinery	3,460.39	1,798.56	1,712.41	682.24	326.86	586.24					8,566.70
Total	4,415.40	2,312.57	2,235.68	2,802.10	997.35	1,269.84					14,032.94
Reina Mercedes:											
Construction and repair							37.29	9.75	12.46		59.50

Relief:											
Construction and repair	2,441.82	1,567.90	1,627.38	1.76	1.23						5,640.09
Steam machinery	263.08	110.94	58.28								432.30
Total	2,704.90	1,678.84	1,685.66	1.76	1.23						6,072.39
Restless:											
Construction and repair	117.30		40.84								158.14
Steam machinery				87.18							87.18
Total	117.30		40.84	87.18							245.32
Rhode Island:											
Equipment of vessels (C. & R.)	231.79	93.24	449.34								774.37
Equipment of vessels (S. E.)	8,199.80	2,966.71	1,778.07	7,886.74	2,782.51	7,166.76					30,780.59
Ordnance and ordnance stores	14,252.66	5,097.19	1,753.74	1,891.69	640.97	342.23	18.72	8.74		2,704 62	26,710.56
Construction and repair	48,484.57	18,752.95	15,278.10	26,193.68	10,460.18	8,790.53					127,960.01
Steam machinery	36,674.79	13,511.84	26,960.47	3,311.78	1,254.19	820.51	6.16	3.08		20.00	82,562.82
Total	107,843.61	40,421.93	46,219.72	39,283.89	15,137.85	17,120.03	24.88	11.82		2,724.62	268,788.35
Richmond:											
Construction and repair	186.49	58.38	339.11								583.98
Steam machinery	76.28	34.33	19.08								129.69
Total	262.77	92.71	358.19								713.67
Rocket:											
Equipment of vessels (C. & R.)	9.12	2.74	1.48								13.34
Equipment of vessels (S. E)	3.28	.98									4.26
Construction and repair	504.64	163.25	118.73								786.62
Steam machinery	1,094.66	534.95	226.49	17.40	8.26	60.31					1,942.07
Total	1,611.70	701.92	346.70	17.40	8.26	60.31					2,746.29
Rodgers:											
Equipment of vessels (S. E.)	32.30	11.73	23.97	3.60	1.20						72.80
Construction and repair	646.08	293.77	160.17	103.15	71.20	5.04					1,279.41
Steam machinery	647.91	300.80	96.56							70.00	1,115.27
Total	1,326.29	606.30	280.70	106.75	72.40	5.04				70.00	2,467.48
Roe:											
Equipment of vessels (C. & R.)	51.89	13.16	13.76								78.81
Equipment of vessels (S. E)	155.01	31.41	249.13	211.98	47.39	230.60	290.88	76.62	19.10		1,312.12
Construction and repair	6,381.80	2,158.23	958.95	564.70	204.37	63.47	1.50	.45			10,333.47
Steam machinery	4,616.70	1,431.54	883.93	426.52	118.54	707.17	608.53	195.14	177.64		9,165.71
Total	11,205.40	3,634.34	2,105.77	1,203.20	370.30	1,001.24	900.91	272.21	196.74		20,890.11

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Change and additions.			Casualties,			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect,	Material.		
Rainbow:											
Equipment of vessels (C. & R.)										$263.44	$263.44
Construction and repair	$2,107.44	$1,385.62	$999.94							1,245.18	5,738.18
Steam machinery	1,626.66	737.46	1,090.79							71.96	3,526.87
Total	3,734.10	2,123.08	2,090.73							1,580.58	9,528.49
Raleigh:											
Equipment of vessels (S. E.)				$52.48	$21.95	$302.68					377.11
Construction and repair	515.10	230.56	384.31	955.54	509.43	718.39					3,313.33
Steam machinery	41.45	30.62	12.94	111.28	71.91	8.79					276.99
Total	556.55	261.18	397.25	1,119.30	603.29	1,029.86					3,967.43
Ranger:											
Equipment of vessels (C. & R.)	17.77	8.88	7.05								33.70
Equipment of vessels (S. E.)							$96.14	$45.88	$41.25		183.27
Construction and repair	1,871.78	877.23	777.31	89.12	53.03	19.38					3,687.85
Steam machinery	2,648.51	1,108.41	403.01	182.94	91.92	274.93					4,709.72
Total	4,538.06	1,994.52	1,187.37	272.06	144.95	294.31	96.14	45.88	41.25		8,614.54
Rapido:											
Construction and repair	330.37	183.39	325.90								839.66
Steam machinery	106.15	56.94	3.88								166.97
Total	436.52	240.33	329.78								1,006.63
Reid:											
Equipment of vessels (C. & R.)				2.00	.60	4.35					6.95
Equipment of vessels (S. E.)	48.50	26.14	16.77	655.38	206.53	374.12					1,327.44
Construction and repair	906.51	487.87	506.50	1,462.48	463.36	305.13					4,131.85
Steam machinery	3,460.39	1,798.56	1,712.41	682.24	326.86	586.24					8,566.70
Total	4,415.40	2,312.57	2,235.68	2,802.10	997.35	1,269.84					14,032.94
Reina Mercedes:											
Construction and repair							37.29	9.75	12.46		59.50

Relief:											
Construction and repair	2,441.82	1,567.90	1,627.38	1.76	1.23						5,640.09
Steam machinery	263.08	110.94	58.28								432.30
Total	2,704.90	1,678.84	1,685.66	1.76	1.23						6,072.39
Restless:											
Construction and repair	117.30		40.84								158.14
Steam machinery				87.18							87.18
Total	117.30		40.84	87.18							245.32
Rhode Island:											
Equipment of vessels (C. & R.)	231.79	93.24	449,34								774.37
Equipment of vessels (S. E.)	8,199.80	2,966.71	1.778.07	7,886.74	2,782.51	7,166.76					30,780.59
Ordnance and ordnance stores	14,252.66	5.097.19	1,753.74	1,891.69	640.97	342.23	18.72	8.74		2,704 62	26,710.56
Construction and repair	48,484.57	18,752.95	15,278.10	26,193.68	10,460.18	8,790.53					127,960.01
Steam machinery	36,674.79	13,511.84	26,960.47	3,311.78	1,254.19	820.51	6.16	3.08		20.00	82,562.82
Total	107,843.61	40,421.93	46.219.72	39,283.89	15,137.85	17,120.03	24.88	11.82		2,724.62	268,788.35
Richmond:											
Construction and repair	186.49	58.38	339.11								583.98
Steam machinery	76.28	34.33	19.08								129.69
Total	262.77	92.71	358.19								713.67
Rocket:											
Equipment of vessels (C. & R.)	9.12	2.74	1.48								13.34
Equipment of vessels (S. E)	3.28	.98									4.26
Construction and repair	504.64	163.25	118.73								786.62
Steam machinery	1,094.66	534.95	226.49	17.40	8.26	60.31					1,942.07
Total	1,611.70	701.92	346.70	17.40	8.26	60.31					2,746.29
Rodgers:											
Equipment of vessels (S. E.)	32.30	11.73	23.97	3.60	1.20						72.80
Construction and repair	646.08	293.77	160.17	103.15	71.20	5.04					1,279.41
Steam machinery	647.91	300.80	96.56							70.00	1,115.27
Total	1,326.29	606.30	280.70	106.75	72.40	5.04				70.00	2,467.48
Roe:											
Equipment of vessels (C. & R.)	51.89	13.16	13.76								78.81
Equipment of vessels (S. E)	155.01	31.41	249.13	211.98	47.39	230.60	290.88	76.62	19.10		1,312.12
Construction and repair	6,381.80	2,158.23	958.95	564.70	204.37	63.47	1.50	.45			10,333.47
Steam machinery	4,616.70	1,431.54	883.93	426.52	118.54	707.17	608.53	195.14	177.64		9,165.71
Total	11,205.40	3,634.34	2,105.77	1,203.20	370.30	1,001.24	900.91	272.21	196.74		20,890.11

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Rowan:											
Equipment of vessels (C. & R.)	$6.26	$2.60	$2.77								$11.63
Equipment of vessels (S. E.)	4.58	2.06	.79								7.43
Ordnance and ordnance stores	32.98	16.02	11.34								60.34
Construction and repair	1,080.68	444.95	629.30	$11.11	$5.10						2,171.14
Steam machinery	996.70	477.98	555.87								2,030.55
Total	2,121.20	943.61	1,200.07	11.11	5.10						4,281.09
St. Louis:											
Equipment of vessels (C. & R.)	70.41	33.56	718.88	18.56	8.86	$2,623.09					3,473.36
Equipment of vessels (S. E.)	176.47	94.20	56.89	547.84	227.76	22,288.99					23,392.15
Ordnance and ordnance stores	11.96	5.38		111.20	48.80	25.44					202.78
Construction and repair	5,246.46	1,741.51	2,155.59	576.65	296.50	159.81					10,176.52
Steam machinery	794.96	341.08	160.08	257.27	25.32	976.55					2,555.26
Total	6,300.26	2,215.73	3,091.44	1,511.52	607.24	26,073.88					39,800.07
Salem:											
Equipment of vessels (S. E.)	845.79	332.10	215.10	470.12	239.64	81.86					2,184.61
Construction and repair	4,797.09	1,800.39	2.166.09	685.05	279.72	288.44					10,016.78
Steam machinery	6,595.49	2,993.89	1,923.54	761.56	384.00	316.21	$206.71	$94.90	$80.01		13,356.31
Total	12,238.37	5,126.38	4,304.73	1,916.73	903.36	686.51	206.71	94.90	80.01		25,557.70
Samar:											
Construction and repair										$181.76	181.76
Steam machinery										110.16	110.16
Total										291.92	291.92
Samoset:											
Equipment of vessels (S. E.)	25.36	9.95									35.31
Construction and repair	477.29	184.06	185.11	15.96	9.59	1.72					873.73
Steam machinery	503.57	222.72	52.68								778.97
Total	1,006.22	416.73	237.79	15.96	9.59	1.72					1,688.01

Sandoval:										
Construction and repair, 1911									654.45	654.43
San Francisco:										
Equipment of vessels (C. & R.)	14.64	7.32	484.50	154.24	31.37	14.97				677.10
Equipment of vessels (S. E.)	290.90	86.06	42.55	529.72	213.77	187.67				1,265.57
Ordnance and ordnance stores	53.44	10.69	45.25	36.64	13.45					159.47
Construction and repair	6,381.52	2,357.44	1,138.80	6,086.41	2,554.37	1,294.89	98.22	56.51	11.41		19,979.57
Steam machinery	4,457.03	2,256.28	4,930.12	773.02	442.39	465.21					13,324.05
Total	11,197.53	4,717.79	6,556.12	7,580.03	3,255.35	1,932.80	98.22	56.51	11.41		35,405.76
Saratoga:											
Equipment of vessels (C. & R.)	26.54	21.26	8.02	45.56	51.45	206.08					358.91
Equipment of vessels (S. E.)	181.40	135.77	50.45	31.40	30.20	43.40				5,233.80	5,706.42
Ordnance and ordnance stores	289.73	337.17	100.07	127.08	150.20	3.02					1,007.27
Construction and repair	874.78	557.65	1,412.95	755.52	563.65	589.89					4,754.44
Steam machinery	806.50	556.20	457.71	1,516.73	923.88	1,075.59					5,336.61
Total	2,178.95	1,608.05	2,029.20	2,476.29	1,719.38	1,917.98				5,233.80	17,163.65
Saturn:											
Equipment of vessels (S. E.)				782.92	356.13	821.37					1,960.42
Construction and repair	2,827.04	1,676.23	832.92	1,312.72	936.32	1,057.34					8,642.57
Steam machinery	4,059.36	2,712.16	19,700.89	167.83	132.17	184.47					26,956.88
Total	6,886.40	4,388.39	20,533.81	2,263.47	1,424.62	2,063.18					37,559.87
Scorpion:											
Construction and repair										1,451.69	1,451.69
Steam machinery										336.01	336.01
Equipment of vessels (S. E.) 1911										160.57	160.57
Construction and repair, 1911										15,163.93	15,163.93
Steam machinery, 1911										21,800.55	21,800.55
Total										38,912.75	38,912.75
Sebago:											
Construction and repair	435.36	167.38	152.85	55.14	18.88	54.41					884.02
Steam machinery	697.66	308.77	840.83				11.07	4.43	.33		1,863.09
Total	1,133.02	476.15	993.68	55.14	18.88	54.41	11.07	4.43	.33		2,747.11
Severn:											
Equipment of vessels (C. & R.)	42.77	10.94	19.46								73.17
Equipment of vessels (S. E.)	394.04	195.40	15.58			34.08					639.10
Construction and repair	1,470.15	549.84	348.49	2,731.91	846.68	715.24					6,662.31
Steam machinery	391.35	187.03	61.45	1,586.13	765.85	4,290.10				150.00	7,431.91
Total	2,298.31	943.21	444.98	4,318.04	1,612.53	5,039.42				150.00	14,806.49

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Shubrick:											
Construction and repair	$275.22	$118.99	$132.72	$8.32	$4.16						$539.41
Sioux:											
Equipment of vessels (C. & R.)	4.64	2.32	1.90								8.86
Construction and repair	589.70	248.12	137.20				$30.22	$12.66	$3.53		1,021.43
Steam machinery	298.35	142.35	126.52								567.22
Total	892.69	392.79	265.62				30.22	12.66	3.53		1,597.51
Smith:											
Equipment of vessels (C. & R.)	20.58	6.19	128.35	13.84	4.62	$4.35					177.93
Equipment of vessels (S. E.)	383.64	150.75	39.93	569.90	180.15	368.95					1,693.32
Ordnance and ordnance stores	14.32	5.73	.08								20.13
Construction and repair	2,041.30	1,008.82	861.62	1,520.03	526.63	683.87	10.06	5.03			6,657.36
Steam machinery	2,974.25	1,778.06	1,202.38	2,583.53	1,205.66	1,099.61				$10.00	10,853.49
Total	5,434.09	2,949.55	2,232.36	4,687.30	1,917.06	2,156.78	10.06	5.03		10.00	19,402.23
Solace:											
Equipment of vessels (C. & R.)	78.84	36.65	40.51								156.00
Equipment of vessels (S. E.)	97.55	26.88	27.78	95.68	22.97	86.21					357.07
Construction and repair	3,306.29	860.48	923.65	1,192.89	328.78	381.09					6,993.18
Steam machinery	5,030.87	1,410.03	2,346.24	2,107.44	496.91	10,736.87					22,128.36
Equipment of vessels (S. E.) 1911						*26.96*					*26.96*
Construction and repair, 1911			*56.25*								*56.25*
Total	8,513.55	2,334.04	3,281.93	3,396.01	848.66	11,177.21					29,551.40
Somers:											
Steam machinery										201.56	201.56
Steam machinery, 1911										1,994.00	1,994.00
Total										2,195.56	2,195.56
Sotoyomo:											
Equipment of vessels (C. & R.)	38.28	16.47	19.31								74.06
Equipment of vessels (S. E.)	243.01	117.41	51.37	130.38	87.60	4.57					634.34

Construction and repair	543.25	273.25	158.38	61.72	48.58	36.95					1,122.13
Steam machinery	1,027.60	705.58	110.21	93.47	60.46	25.62					2,022.94
Total	1,852.14	1,112.71	339.27	285.57	196.64	67.14					3,853.47
South Carolina:											
Equipment of vessels (C. & R.)	84.12	27.82	19.30	29.12	8.38	29.75					198.49
Equipment of vessels (S. E.)	5.38	1.34		47.20	14.16	65.53					133.61
Ordnance and ordnance stores	451.02	202.94	8.08	532.07	309.67	11,557.91					13,061.69
Construction and repair	824.81	330.64	1,473.66	3,024.25	1,196.52	1,947.94	108.78	52.13	56.75		9,015.48
Steam machinery	104.86	52.68	179.29	704.26	330.71	503.36					1,875.16
Ordnance and ordnance stores, 1911										5,902.87	5,902.87
Total	1,470.19	615.42	1,680.33	4,336.90	1,859.44	14,104.49	108.78	52.13	56.75	5,902.87	30,187.30
South Dakota:											
Equipment of vessels (C. & R.)	76.14	27.09	475.07	54.25	27.20	1,099.54					1,759.29
Equipment of vessels (S. E.)	900.41	381.15	585.79	4,702.96	1,974.79	4,623.33					13,168.43
Ordnance and ordnance stores	13.33	7.49	3.50	14.72	8.94	18.28					66.26
Construction and repair	3,284.82	1,470.52	3,274.25	20,817.57	7,982.04	9,374.12					46,203.32
Steam machinery	2,262.96	1,162.41	1,898.61	23,129.79	11,162.83	9,437.42	15.57	9.34			49,078.93
Total	6,537.66	3,048.66	6,237.22	48,719.29	21,155.80	24,552.69	15.57	9.34			110,276.23
Southery:											
Equipment of vessels (C. & R.)	57.20	21.25	30.31								108.76
Equipment of vessels (S. E.)	5.04	1.76	79								7.59
Construction and repair	72.50	26.31	46.62	223.95	78.12	76.58					524.08
Steam machinery	155.30	67.83	17.11								240.24
Total	290.04	117.15	94.83	223.95	78.12	76.58					880.67
Standish:											
Equipment of vessels (S. E.)	31.40	15.70	6.01								53.11
Construction and repair	516.39	205.66	225.06	36.19	16.12	18.95					1,018.37
Steam machinery	1,107.53	567.91	131.26								1,806.70
Total	1,655.32	789.27	362.33	36.19	16.12	18.95					2,878.18
Sterling:											
Equipment of vessels (C. & R.)	51.14	7.40	147.91	9.48	4.27	5.93					226.13
Construction and repair	4,222.12	947.25	984.16	1,244.13	380.48	603.58	946.18	266.37	167.58		9,761.85
Steam machinery	1,506.52	795.00	689.36								2,990.88
Total	5,779.78	1,749.65	1,821.43	1,253.61	384.75	609.51	946.18	266.37	167.58		12,978.86
Sterrett:											
Equipment of vessels (S. E.)	298.65	93.78	51.92				7.76	1.94			454.05
Construction and repair	961.41	362.76	415.59	1,898.07	556.83	612.37	279.94	86.76	12.14		5,185.87
Steam machinery	2,140.83	632.00	607.67	19.00	5.85	7.48					3,412.83
Total	3,400.89	1,088.54	1,075.18	1,917.07	562.68	619.85	287.70	88.70	12.14		9,052.75

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Stewart:											
Equipment of vessels (S. E.)	$541.18	$253.66	$154.14	$93.81	$42.28	$28.07					$1,113.14
Construction and repair	2,274.59	889.91	821.51	172.61	66.43	30.10	$54.78	$28.40	$3.30		4,341.63
Steam machinery	3,048.18	1,559.40	5,759.04	456.65	221.62	1,090.40					12,135.29
Total	5,863.95	2,702.97	6,734.69	723.07	330.33	1,148.57	54.78	28.40	3.30		17,590.06
Stockton:											
Equipment of vessels (S. E.)	5.85	3.10									8.95
Construction and repair	330.77	125.89	236.85	4.96	1.84		1,422.03	617.96	400.33		3,140.63
Steam machinery	237.88	98.77	55.79								392.44
Total	574.50	227.76	292.64	4.96	1.84		1,422.03	617.96	400.33		3,542.02
Stringham:											
Equipment of vessels (C. & R.)	6.56	1.31	5.84								13.71
Equipment of vessels (S. E.)	28.98	8.45	7.69	176.23	36.35	316.52					574.22
Construction and repair	867.22	280.76	228.44								1,376.42
Steam machinery	817.45	389.83	259.25			.95					1,467.48
Total	1,720.21	680.35	501.22	176.23	36.35	317.47					3,431.83
Supply:											
Equipment of vessels (C. & R.)			41.87								41.87
Equipment of vessels (S. E.)	64.02	48.54	34.65								147.21
Construction and repair	2,429.69	1,641.84	2,496.09	40.48	37.89	13.83					6,659.82
Steam machinery	1,586.45	990.02	990.04	2,108.62	1,403.91	3,610.06					10,689.10
Total	4,079.16	2,680.40	3,562.65	2,149.10	1,441.80	3,623.89					17,538.00
Sylph:											
Equipment of vessels (S. E.)	41.14	10.28									51.42
Construction and repair	1,591.65	771.98	524.11	75.96	48.62	159.75	83.04	30.96	16.46		3,302.53
Steam machinery	861.90	206.85	260.46								1,329.21
Total	2,494.69	989.11	784.57	75.96	48.62	159.75	83.04	30.96	16.46		4,683.16

Submarine A-1:											
Equipment of vessels (C. & R.)				119.52	47.84	183.78					351.14
Construction & repair	15.20	6.08	27.72								49.00
Steam machinery	32.24	10.75	20.90								63.89
Total	47.44	16.83	48.62	119.52	47.84	183.78					464.03
Submarine A-2:											
Construction and repair	191.21	144.91	119.70	72.12	74.03	37.62					639.59
Steam machinery	153.65	100.87	70.66								325.18
Total	344.86	245.78	190.36	72.12	74.03	37.62					964.77
Submarine A-3:											
Equipment of vessels (C. & R.)				36.68	19.49	19.95					76.12
Equipment of vessels (S. E.)										$855.06	855.06
Construction and repair				7.61	3.76	37.35				250.00	298.72
Total				44.29	23.25	57.30				1,105.06	1,229.90
Submarine A-4:											
Construction and repair	649.56	400.99	344.51	54.32	44.88	65.55					1,559.81
Steam machinery	326.64	170.71	143.64								640.99
Total	976.20	571.70	488.15	54.32	44.88	65.55					2,200.80
Submarine A-5:											
Equipment of vessels (C. & R.)				37.48	19.92	19.91					77.31
Construction and repair				9.62	5.12	37.35					52.09
Steam machinery										364.00	364.00
Total				47.10	25.04	57.26				364.00	493.40
Submarine A-6:											
Equipment of vessels	7.04	7.04	30.50								44.58
Construction and repair	315.41	203.34	185.52	68.11	31.48	103.58					907.44
Steam machinery	746.65	354.19	170.69								1,271.53
Total	1,069.10	564.57	386.71	68.11	31.48	103.58					2,223.55
Submarine A-7:											
Equipment of vessels	40.52	34.52	20.99								96.03
Construction and repair	571.33	434.90	316.98	37.27	30.86	74.55					1,465.89
Steam machinery	274.24	155.56	43.15								472.95
Total	886.09	624.98	381.12	37.27	30.86	74.55					2,034.87

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Submarine B-1:											
Equipment of vessels (Nav.)			$0.45								$0.45
Equipment of vessels (S. E.)	$34.12	$11.06	7.61	$123.36	$61.11	$30.20					267.45
Ordnance and ordnance stores	44.08	19.42	5.29								68.79
Construction and repair	1,045.45	444.51	324.45	836.29	346.23	368.00					3,364.93
Steam machinery	182.20	90.06	10.25								282.50
Total	1,305.85	565.03	348.05	959.65	407.34	398.20					3,984.12
Submarine B-2:											
Equipment of vessels (Nav.)	1.20	.48	.45								2.13
Equipment of vessels (S. E.)	33.40	10.82	5.26	149.03	71.18	1.28					270.97
Ordnance and ordnance stores	55.28	23.09	5.14								83.51
Construction and repair	1,365.03	565.02	347.97	676.88	284.91	271.42					3,511.23
Steam machinery	274.56	133.84	29.48								437.88
Total	1,729.47	733.25	388.30	825.91	356.09	272.70					4,305.72
Submarine B-3:											
Equipment of vessels (S. E.)	42.12	13.69	7.61								63.42
Ordnance and ordnance stores	51.08	20.44	5.60								77.12
Construction and repair	994.90	389.03	186.08	790.60	315.10	340.04					3,015.75
Steam machinery	217.01	85.16	23.04								325.21
Total	1,305.11	508.32	222.33	790.60	315.10	340.04					3,481.50
Submarine C-1:											
Equipment of vessels (S. E.)	35.24	7.81									43.05
Ordnance and ordnance stores				367.66	169.13	36.35					573.14
Construction and repair	2,364.32	783.04	312.66	1,547.31	509.76	753.04					6,270.13
Total	2,399.56	790.85	312.66	1,914.97	678.89	789.39					6,886.32
Submarine C-2:											
Equipment of vessels (S. E.)	24.02	9.23	18.10	6.56	1.97	.19					60.07
Ordnance and ordnance stores				175.84	75.23	121.28					372.35

Construction and repair	1,148.99	390.69	340.01	1,040.30	358.28	670.40					3,948.67
Steam machinery	186.58	90.19	11.69	95.80	46.09	42.75					473.10
Total	1,359.59	490.11	369.80	1,318.50	481.57	834.62					4,854.19
Submarine C-3:											
Equipment of vessels (S. E.)	401.31	126.30	61.82	5.04	1.51	2.78					598.76
Ordnance and ordnance stores				183.32	79.14	92.93					355.39
Construction and repair	1,475.87	503.82	419.53	1,262.07	491.00	5,311.51					9,463.80
Steam machinery	239.46	114.78	65.46	82.23	39.89	46.49					588.31
Total	2,116.64	744.90	546.81	1,532.66	611.54	5,453.71					11,006.26
Submarine C-4:											
Equipment of vessels (S. E.)	22.36	8.82	19.55	11.60	3.49	3.38					69.20
Ordnance and ordnance stores				173.70	74.42	33.31					281.43
Construction and repair	1,427.85	484.99	395.77	3,028.82	1,177.89	5,801.94					12,317.26
Steam machinery	754.29	218.56	37.11	60.36	29.84	4.86					1,105.02
Steam machinery, 1911										$850.00	850.00
Total	2,204.50	712.37	452.43	3,274.48	1,285.64	5,843.49				850.00	14,622.91
Submarine C-5:											
Equipment of vessels (S. E.)	22.18	9.10	18.44			.30					49.42
Ordnance and ordnance stores				179.15	77.31	94.74					351.20
Construction and repair	1,140.69	376.09	372.28	734.26	259.25	481.35					3,363.92
Steam machinery	252.09	125.89	15.45	108.04	52.40	43.25					597.12
Total	1,414.96	511.08	406.17	1,021.45	388.96	619.04					4,361.66
Submarine D-1:											
Equipment of vessels (S. E.)	158.26	45.55	18.37	18.41	5.59	1.12					247.30
Ordnance and ordnance stores				3.58	2.33	1.85					7.76
Construction and repair	1,577.58	582.15	367.09	1,934.39	692.40	679.24					5,832.85
Steam machinery	331.04	159.25	31.49	264.91	127.56	811.83				181.10	1,907.18
Total	2,066.88	786.95	416.95	2,221.29	827.88	1,494.04				181.10	7,995.09
Submarine D-2:											
Equipment of vessels (S. E.)	140.68	40.40	14.23	17.84	5.35	1.32					219.82
Ordnance and ordnance stores				2.40	1.56	1.55					5.51
Construction and repair	1,407.34	492.34	311.04	1,041.25	381.01	618.83					4,251.81
Steam machinery	190.88	93.48	21.10	267.74	126.12	805.27					1,504.59
Total	1,738.90	626.22	346.37	1,329.23	514.04	1,426.97					5,981.73
Submarine D-3:											
Equipment of vessels (S. E.)	8.80	2.64				.30					11.14
Ordnance and ordnance stores				1.92	1.25	1.85					5.02
Construction and repair	1,271.55	454.90	290.86	887.95	314.09	562.61					3,781.96
Steam machinery	289.66	140.80	55.25	375.64	168.17	37.12					1,066.64
Total	1,570.01	598.34	346.11	1,265.51	483.51	601.28					4,864.76

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Submarine E-1:											
Equipment of vessels (C. & R.)				$8.49	$2.55	$16.88					$27.92
Equipment of vessels (S. E.)	$3.50	$0.87				29.53					33.90
Construction and repair	14.08	7.04	$0.80	81.46	38.93	25.07					167.38
Steam machinery	74.87	41.40	12.47								128.74
Total	92.45	49.31	13.27	89.95	41.48	71 48					357.94
Submarine E-2:											
Equipment of vessels (C. & R.)				13.05	3.92	16.88					33.85
Equipment of vessels (S. E.)	10.92	3.82				29.62					44.36
Construction and repair	265.99	120.99	79.75	68.02	34.68	24.80	$60.90	$27.67	$2.66		685.46
Steam machinery	45.48	18.94	7.66								72.08
Total	322.39	143.75	87.41	81.07	38.60	71.30	60.90	27.67	2.66		885.75
Tacoma:											
Equipment of vessels (C. & R.)	318.03	96.89	155.72								570.64
Equipment of vessels (S. E.)	110.98	21.86	2.18	1,248.71	300.18	725.45					2,409.36
Ordnance and ordnance stores	381.30	161.82	79.43								622.55
Construction and repair	22,511.35	5,971.10	4,945.64	1,628.63	530.92	344.69					35,932.33
Steam machinery	13,217.08	3,481.35	2,471.59	3,240.26	841.53	5,332.92					28,584.73
Total	36,538.74	9,733.02	7,654.56	6,117.60	1,672.63	6,403.06					68,119.61
Talbot:											
Equipment of vessels (S. E.)				1.76	.70						2.46
Construction and repair	215.51	73.65	78.06	1,043.67	485.91	296.95					2,193.75
Steam machinery	636.04	107.40	36.09	1,616.72	916.15	803.51					4,115.91
Total	851.55	181.05	114.15	2,662.15	1,402.76	1,100.46					6,312.12
Tallahassee:											
Equipment of vessels (C. & R.)	5.52	1.66	8.26								15.44
Equipment of vessels (S. E.)	1,169.25	416.46	139.45	13.60	4.08	3.00					1,745.84
Ordnance and ordnance stores				31.20	11.53	*10.60*				$4,618.05	4,650.18
Construction and repair	6,999.61	2,663.08	2,061.60	2,036.84	916.67	709.56					15.386.86

Steam machinery	2,124.00	898.76	559.92	928.73	442.74	478.42				5,427.57
Ordnance and ordnance stores, 1911									10,468.09	10,468.09
Total	10,298.38	3,974.96	2,769.23	3,009.87	1,375.02	1,180.38			15,086.14	37,693.98
Tecumseh:										
Equipment of vessels (S. E.)	97.68	14.27	7.32							119.27
Construction and repair	1,190.16	504.68	249.21							1,944.05
Steam machinery	2,947.49	780.28	646.22							4,373.99
Total	4,235.33	1,299.23	902.75							6,437.31
Tennessee:										
Equipment of vessels (C. & R.)	337.61	66.97	323.10	120.97	15.55	58.51				922.71
Equipment of vessels (S. E.)	294.47	63.69	32.90	11,885.98	2,862.70	6,005.24				21,144.98
Ordnance and ordnance stores	441.65	209.37	46.98	1,695.91	454.84	743.32				3,592.07
Construction and repair	7,727.95	2,154.23	3,873.62	33,166.82	10,755.13	11,620.30				69,298.05
Steam machinery	11,956.42	3,481.62	3,699.67	32,351.54	9,546.69	25,012.29				86,048.23
Total	20,758.10	5,975.88	7,976.27	79,221.22	23,634.91	43,439.66				181,006.04
Terror:										
Ordnance and ordnance stores			798.00							798.00
Terry:										
Equipment of vessels (C. & R.)	25.94	7.78	30.49							64.21
Equipment of vessels (S. E.)	220.06	86.97	216.74	10.05	3.01	1.11				537.94
Construction and repair	847.06	263.64	368.32	2,409.61	869.44	597.37	1,539.38	611.58	356.01		7,862.41
Steam machinery	4,815.85	2,628.15	1,671.10	960.79	510.72	298.41					10,885.02
Equipment of vessels (S. E.), 1911			*880.00*								*880.00*
Total	5,908.91	2,986.54	1,406.65	3,380.45	1,383.17	896.89	1,539.38	611.58	356.01		18,469.58
Thornton:											
Equipment of vessels (S. E.)	140.88	50.52	44.28								235.68
Construction and repair	1,208.27	533.98	234.75								1,977.00
Steam machinery	4,744.82	1,655.58	3,694.52								10,094.92
Total	6,093.97	2,240.08	3,973.55								12,307.60
Tingey:											
Equipment of vessels (S. E.)				133.64	51.59	63.99					249.22
Construction and repair	901.38	369.19	258.98				706.74	282.27	66.80		2,585.36
Steam machinery	3,424.18	1,437.63	3,589.77								8,451.58
Total	4,325.56	1,806.82	3,848.75	133.64	51.59	63.99	706.74	282.27	66.80		11,286.16

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Tonopah:											
Equipment of vessels (C. & R.)	$47.79	$18.73	$30.01								$96.53
Equipment of vessels (S. E.)	247.39	66.14	21.97			$309.00					644.50
Ordnance and ordnance stores	3.56	1.29	5.82	$77.73	$22.72	.60					111.72
Construction and repair	4,845.31	1,594.22	3,114.10	278.34	110.94	614.27	$24.33	$7.46	$13.78		15,602.75
Steam machinery	3,817.06	1,110.74	907.72	301.63	86.50	437.85					6,661.50
Total	8,961.11	2,791.12	4,079.62	657.70	220.16	1,361.72	24.33	7.46	13.78		18,117.00
Topeka:											
Equipment of vessels (C. & R.)	74.99	19.14	35.13								129.26
Construction and repair	619.09	125.15	206.74	56.63	22.33	14.80					1,044.74
Steam machinery	15.80	3.16	6.47								25.43
Total	709.88	147.45	248.34	56.63	22.33	14.80					1,199.43
Traffic:											
Construction and repair	670.71	233.67	249.55	513.62	183.71	677.05					2,528.31
Steam machinery	500.15	161.13	125.06								786.34
Total	1,170.86	394.80	374.61	513.62	183.71	677.05					3,314.65
Transfer:											
Construction and repair	172.46	61.39	88.36								322.21
Steam machinery	152.87	47.02	4.24								204.13
Total	325.33	108.41	92.60								526.34
Trippe:											
Equipment of vessels (C. & R.)			.75								.75
Equipment of vessels (S. E.)	359.07	124.27	144.74	*100.11*	*42.51*	*783.06*					*297.60*
Construction and repair	703.01	335.30	288.78	70.33	32.60	17.51	79.73	42.27	.95		1,543.48
Steam machinery	1,028.41	420.72	247.75	1,161.96	651.51	217.97					3,728.32
Total	2,090.49	880.29	682.02	1,132.18	641.60	*547.58*	79.73	42.27	.95		5,001.95

Triton:											
Equipment of vessels (S. E.)	35.64										35.64
Construction and repair	2,373.41	923.76	1,243.91								4,541.08
Steam machinery	2,223.73	691.15	411.68								3,326.56
Total	4,632.78	1,614.91	1,655.59								7,903.28
Truxtun:											
Equipment of vessels (C. & R.)	150.09	79.84	97.15	27.61	12.27	20.93					387.89
Equipment of vessels (S. E.)	227.17	108.93	34.09	46.93	21.52	604.17					1,042.81
Construction and repair	4,671.32	2,433.88	1,966.18	1,083.68	527.05	217.06					10,899.17
Steam machinery	14,277.37	8,772.44	16,781.13	584.48	302.60	210.20					40,928.22
Total	19,325.95	11,395.09	18,878.55	1,742.70	863.44	1,052.36					53,258.09
Unadilla:											
Equipment of vessels (S. E.)	81.49	35.37	2.65	18.40	8.21	14.32					160.44
Construction and repair	755.79	256.99	390.65	269.50	97.13	44.34					1,814.40
Steam machinery	430.90	215.22	280.45	183.04	98.16	737.44					1,945.21
Total	1,268.18	507.58	673.75	470.94	203.60	796.10					3,920.05
Uncas.											
Equipment of vessels (C. & R.)	13.96	4.78	6.77								25.51
Equipment of vessels (S. E.)	125.34	42.17	85.39	14.44	4.33	56.60					328.27
Construction and repair	1,935.72	827.19	561.59	305.58	125.36	68.71					3,824.15
Steam machinery	1,478.12	613.60	155.47								2,247.19
Total	3,553.14	1,487.74	809.22	320.02	129.69	125.31					6,425.12
Utah:											
Equipment of vessels (S. E.)	714.87	263.76	199.14	344.20	119.62	196.61	310.51	110.51	202.68		2,461.90
Ordnance and ordnance stores	5.68	2.66	7.25	549.24	179.85	72.09					816.77
Construction and repair	4,873.05	2,069.11	3,168.54	74.06	36.86	11.92	2,628.11	1,006.82	340.04		14,208.51
Steam machinery	418.75	161.25	84.22	224.78	85.64	137.32	5.20	1.56			1,118.72
Total	6,012.35	2,496.78	3,459.15	1,192.28	421.97	417.94	2,943.82	1,118.89	542.72		18,605.90
Vermont:											
Equipment of vessels (C. & R.)	421.38	183.98	308.60								913.96
Equipment of vessels (S. E.)	1,249.88	736.31	138.79	2,216.55	1,114.95	3,302.40					8,758.88
Ordnance and ordnance stores	2,414.87	1,082.43	1,027.62	1,827.31	921.74	345.73					7,619.70
Modernizing turrets				2,374.16	1,365.12	2,772.00					6,511.28
Construction and repair	18,183.00	10,257.20	13,437.90	31,151.50	18,036.38	24,497.72	289.61	186.18	17.80		116,057.29
Steam machinery	18,328.97	11,930.82	39,108.83	2,539.38	1,281.89	152.56					73,342.45
Steam machinery, 1911										$80.00	80.00
Total	40,598.10	24,190.74	54,021.74	40,108.90	22,720.08	31,070.41	289.61	186.18	17.80	80.00	213,283.56

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriatious.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Vestal:											
Equipment of vessels (C. & R.)	$64.48	$25.79	$45.03								$135.30
Equipment of vessels ((S. E.)	85.74	38.81	4.14	$92.88	$32.97	$110.00					364.54
Construction and repair	3,834.51	1,445.33	869.48	2,190.43	1,087.55	470.01	$2.75	$0.83			9,900.89
Steam machinery	807.46	417.08	99.24	609.42	198.42	85.84					2,217.46
Total	4,792.19	1,927.01	1,017.89	2,892.73	1,318.94	665.85	2.75	.83			12,618.19
Vesuvius:											
Equipment of vessels (C. & R.)	2.00	1.00				128.00					131.00
Equipment of vessels (S. E.)	41.40	13.80	35.18	13.58	4.84	18.74					127.54
Construction and repair	1,067.44	430.85	310.49	239.39	118.51	38.10					2,204.78
Steam machinery	4,052.84	1,841.65	1,785.08	181.11	89.56	73.68					8,023.92
Total	5,163.68	2,287.30	2,130.75	434.08	212.91	258.52					10,487.24
Vicksburg:											
Equipment of vessels (C. & R.)	73.60	26.92	21.58								122.10
Equipment of vessels (S. E.)	14.91	6.50	6.26								27.67
Construction and repair	1,803.73	699.93	753.12	494.20	224.18	181.82					4,156.98
Steam machinery	1,448.76	775.68	746.42	675.81	355.45	839.79				$50.00	4,891.91
Total	3,341.00	1,509.03	1,527.38	1,170.01	579.63	1,021.61				50.00	9,198.66
Vigilant:											
Equipment of vessels (C. & R.)	17.43	12.95	.31								30.69
Equipment of vessels (S. E.)	226.05	123.86	30.79								380.70
Construction and repair	3,273.54	1,701.59	1,278.80	388.10	186.17	120.36	67.41	33.69	$16.43		7,066.09
Steam machinery	1,988.42	1,404.76	408.38								3,801.56
Total	5,505.44	3,243.16	1,718.28	388.10	186.17	120.36	67.41	33.69	16.43		11,279.04
Villalobos:											
Equipment of vessels (S. E.)			1,196.11								1,196.11
Construction and repair										1,606.36	1,606.36
Steam machinery										483.33	483.33
Total			1,196.11							2,089.69	3,285.80

Virginia:											
Equipment of vessels (Nav.)							1.20	.72			1.92
Equipment of vessels (C. & R.)	210.57	112.36	498.87								821.80
Equipment of vessels (S. E.)	1,070.60	561.27	275.87	1,221.49	570.17	512.07	130.51	67.93	2.30		4,412.21
Ordnance and ordnance stores	5,747.15	2,818.09	431.52	1,011.10	504.15	162.12	803.88	475.70	96.67	7.00	12,057.38
Construction and repair	9,453.40	4,690.59	5,663.30	20,568.84	10,162.23	13,010.14					63,548.50
Steam machinery	4,865.24	2,334.80	1,037.89	1,462.95	711.37	1,347.01					11,759.26
Ordnance and ordnance stores, 1911										2,113.25	2,113.25
Total	21,346.96	10,517.11	7,907.45	24,264.38	11,947.92	15,031.34	935.59	544.35	98.97	2,120.25	94,714.32
Vixen:											
Equipment of vessels (C. & R.)			15.06								15.06
Equipment of vessels (S. E.)						4.55					4.55
Construction and repair	1,203.79	288.57	269.58	132.19	33.76	19.28					1,947.17
Steam machinery	1,392.77	322.53	67.84	22.42	5.02	.98					1,811.56
Total	2,596.56	611.10	352.48	154.61	38.78	24.81					3,778.34
Vulcan:											
Equipment of vessels (C. & R.)				235.19	76.39	653.42					965.00
Equipment of vessels (S. E.)	468.05	165.05	63.68	166.00	50.33	42.83					955.94
Construction and repair	3,001.53	980.99	859.97	5,405.44	2,125.08	1,757.87					14,130.88
Steam machinery	5,641.26	2,309.93	1,358.37	2,233.99	1,058.49	1,855.76					14,457.80
Total	9,110.84	3,455.97	2,282.02	8,040.62	3,310.29	4,309.88					30,509.62
Waban:											
Construction and repair	407.01		86.69				51.76		2.19		547.65
Steam machinery	18.90		.69								19.59
Total	425.91		87.38				51.76		2.19		567.24
Wabash:											
Equipment of vessels (C. & R.)						330.00					330.00
Equipment of vessels (S. E.)	20.00	6.67	7.34								34.01
Construction and repair	.86		1.80	17.78	10.35						30.79
Steam machinery	180.14	69.80	372.19								622.13
Total	201.00	76.47	381.33	17.78	10.35	330.00					1,016.93
Wahneta:											
Equipment of vessels (S. E.)	15.68	7.22	1.10								24.00
Construction and repair	1,042.67	439.53	275.37	24.35	7.38	28.45	109.46	37.42	7.44		1,972.07
Steam machinery	1,720.44	892.48	441.06								3,053.98
Total	2,778.79	1,339.23	717.53	24.35	7.38	28.45	109.46	37.42	7.44		5,050.05

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Walke:											
Equipment of vessels (C. & R.)				$43.61	$21.84	$22.76					$88.21
Equipment of vessels (S. E.)	$13.95	$5.43		37.64	12.08	*210.73*					*141.63*
Construction and repair	767.83	323.19	$460.10	307.67	156.45	98.15	$100.11	$54.15	$1.48	$3.00	2,272.13
Steam machinery	319.50	127.21	60.02	381.85	163.39	186.25					1,238.22
Steam machinery, 1911			*34.30*								*34.30*
Total	1,101.28	455.83	485.82	770.77	353.76	96.43	100.11	54.15	1.48	3.00	3,422.63
Warrington:											
Equipment of vessels (C. & R.)				3.76	.94						4.70
Equipment of vessels (S. E.)	38.16	11.48	36.60	11.92	2.51	132.54	1.76	.54			235.51
Construction and repair	385.82	142.09	143.43	519.54	218.08	95.09	912.51	364.98	2,890.98		5,672.47
Steam machinery	36.04	20.07	14.34				84.40	42.34	1.35		198.54
Steam machinery, 1911			*6.58*								*6.58*
Total	460.02	173.64	187.79	535.22	221.48	227.63	998.67	407.86	2,892.33		6,104.64
Washington:											
Equipment of vessels (C. & R.)				91.00	29.76	83.26					204.02
Equipment of vessels (S. E.)										497.50	497.50
Ordnance and ordnance stores	20.60	6.68	35.61								62.89
Construction and repair	1,694.71	434.34	1,811.79	1,198.02	412.08	2,776.76					8,327.65
Steam machinery	230.86	97.08	820.98	116.94	76.53	3,742.66				131.00	5,216.05
Total	1,946.17	538.10	2,668.38	1,405.96	518.32	6,602.68				628.50	14,308.11
Wasp:											
Equipment of vessels (C. & R.)	.88	.22	.90								2.00
Equipment of vessels (S. E.)	107.94	32.37	22.64								162.95
Construction and repair	1,306.96	403.78	248.60	4.48	1.34						1,965.16
Steam machinery	622.62	184.62	160.56								967.80
Total	2,038.40	620.99	432.70	4.48	1.34						3,097.91

West Virginia:											
Equipment of vessels (C. & R.)	131.08	77.95	75.24	104.83	42.01	43.36					474.47
Equipment of vessels (S. E.)	855.75	413.58	231.04	551.40	285.16	281.50					2,618.43
Ordnance and ordnance stores	574.18	384.86	37.93								996.97
Construction and repair	8,557.63	5,550.84	4,456.78	2,020.85	1,382.57	746.19					22,714.86
Steam machinery	2,836.05	1,710.96	1,085.84	2,836.72	1,566.04	4,649.17					14,684.78
Total	12,954.69	3,138.19	5,886.83	5,513.80	3,275.78	5,720.22					41,489.51
Wheeling:											
Equipment of vessels (C. & R.)	60.94	20.70	12.03								93.67
Equipment of vessels (S. E.)	160.94	48.44	5.06	398.02	135.33	1,354.72					2,102.51
Construction and repair	968.26	254.28	209.27	1,062.99	475.57	277.50			8.53		3,256.40
Steam machinery	1,182.51	584.94	196.31	468.59	253.91	375.86					3,062.12
Total	2,372.65	908.36	422.67	1,929.60	864.81	2,008.08			8.53		8,514.70
Whipple:											
Equipment of vessels (C. & R.)				11.35	4.94	8.56					24.85
Equipment of vessels (S. E.)	21.57	11.73	16.60	157.64	68.08	900.66					1,176.28
Ordnance and ordnance stores			91.80								91.80
Construction and repair	837.63	302.61	493.07	77.08	29.12	3.98					1,743.49
Steam machinery	2,043.30	1,076.72	551.83	70.31	39.87	4.64					3,786.67
Total	2,902.50	1,391.06	1,153.30	316.38	142.01	917.84					6,823.09
Wilkes:											
Construction and repair	613.89	273.48	208.54	7.74	3.68	1.92	57.52	17.84	.40		1,185.01
Steam machinery	214.32	105.51	54.88								374.71
Total	828.21	378.99	263.42	7.74	3.68	1.92	57.52	17.84	.40		1,559.72
Wilmington:											
Equipment of vessels (C. & R.)	244.78	177.62	201.43								623.83
Equipment of vessels (S. E.)	26.12	14.36	7.01								47.49
Construction and repair	704.71	520.04	1,371.45							448.66	3,044.86
Steam machinery	2,037.99	1,194.89	1,934.28				4.71	2.13	3.02	162.36	5,339.38
Total	3,013.60	1,906.91	3,514.17				4.71	2.13	3.02	611.02	9,055.56
Wisconsin:											
Equipment of vessels (C. & R.)	225.11	37.41	889.72	296.37	81.58	1,374.50					2,904.69
Equipment of vessels (S. E.)	12,407.26	2,589.27	8,424.28	6,345.88	1,428.76	3,822.71					35,018.16
Ordnance and ordnance stores	855.29	269.43	218.13	8,612.57	2,839.81	3,001.20				67.23	15,863.66
Modernizing turrets				4,501.05	1,462.57	5,666.71					11,630.33
Construction and repair	23,873.16	7,090.18	6,949.86	40,120.20	12,358.81	25,302.23				248.57	115,943.01
Steam machinery	1,740.48	497.45	359.06	2,043.65	715.43	623.68					5,979.75
Total	39,101.30	10,483.74	16,841.05	61,919.72	18,886.96	39,791.03				315.80	187,339.60

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

Vessels and appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Public bills.	Total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Wompatuck:											
Equipment of vessels (S. E.)	$55.68	$30.25	$74.56	$3.90	$2.15	$26.74					$193.28
Construction and repair	156.54	96.30	236.21	154.20	107.59	130.22					881.06
Steam machinery	541.12	370.21	223.08								1,134.41
Total	753.34	496.76	533.85	158.10	109.74	156.96					2,208.75
Worden:											
Equipment of vessels (S. E.)	9.56	2.90		143.26	42.98	106.09					304.79
Construction and repair	2,282.40	802.68	772.54								3,857.62
Steam machinery	1,314.60	516.99	336.97	837.18	250.53	488.07					3,744.34
Total	3,606.56	1,322.57	1,109.51	980.44	293.51	594.16					7,906.75
Yankton:											
Equipment of vessels (S. E.)	9.60	2.75									12.35
Ordnance and ordnance stores				31.92	6.91						38.83
Construction and repair	1,017.10	372.25	312.78	136.54	49.41	21.42					1,909.50
Steam machinery	576.96	198.81	874.11	14.16	3.54						1,667.58
Construction and repair, 1911			.44								.44
Total	1,603.66	573.81	1,186.45	182.62	59.86	21.42					3,627.82
Yantic:											
Construction and repair										$173.00	173.00
Steam machinery										29.00	29.00
Construction and repair, 1911										215.00	215.00
Steam machinery, 1911										388.75	388.75
Total										805.75	805.75
Yorktown:											
Equipment of vessels (C. & R.)	57.56	17.44	552.54								627.54
Equipment of vessels (S. E.)	18.60	8.58	1.48	40.80	12.25	27.86					109.57
Construction and repair	2,200.13	867.15	1,317.57	271.29	107.78	134.04					4,897.96
Steam machinery	961.34	438.84	1,384.14	483.45	221.74	4,899.04					8,388.55
Total	3,237.63	1,332.01	3,255.73	795.54	341.77	5,060.94					14,023.62

Yosemite:										
Equipment of vessels (S. E.)	462.00	189.46	47.58	152.90	63.56	....	....	....	....	915.50
Construction and repair	2,200.03	743.98	871.68	3,875.92	1,226.23	1,834.92	....	....	....	10,752.76
Steam machinery	6,174.25	2,796.61	1,769.99	1,095.44	422.15	1,080.12	....	....	....	13,338.56
Total	8,836.28	3,730.05	2,689.25	5,124.26	1,711.94	2,915.04	....	....	....	25,006.82

RECAPITULATION BY APPROPRIATIONS.

Appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Total.			Public bills.	Grand total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Equipment of vessels (Nav.)	$32.56	$11.87	$142.42	$51.62	$17.29	$0.28	$1.20	$0.72	....	$85.38	$29.88	$142.70	....	$257.96
Equipment of vessels (C. & R.)	19,095.69	6,971.45	23,000.43	6,818.51	2,610.55	34,628.69	97.48	23.78	$44.01	26,011.68	9,605.78	57,673.13	$317.50	93,608.09
Equipment of vessels (S. E.)	142,400.04	50,567.93	79,691.39	212,486.97	75,783.58	227,807.06	5,480.38	1,364.56	3,153.82	360,367.39	127,716.07	310,652.27	6,592.36	805,328.09
Ordnance and ordnance stores	75,879.72	33,190.05	46,940.83	94,482.63	38,791.59	71,888.31	1,171.08	654.95	127.40	171,533.43	72,636.59	118,956.54	14,944.47	378,071.03
Modernizing turrets, ships of the Navy	....	....	....	59,144.69	18,574.72	202,780.54	....	....	....	59,144.69	18,574.72	202,780.54	....	280,499.95
New batteries, ships of the Navy	....	....	....	2,819.98	890.41	13,172.05	....	....	....	2,819.98	890.41	13,172.05	....	16,882.44
Ocean and lake surveys	....	....	....	30.76	5.57	....	....	....	....	30.76	5.57	....	....	36.33
Arming and equipping Naval Militia	....	....	....									....	351.82	351.82
Construction and repair	1,176,960.31	454,615.50	463,682.91	1,085,510.83	433,981.46	516,903.26	32,162.10	12,726.56	9,382.70	2,294,633.24	901,323.52	989,968.87	19,023.12	4,204,948.75
Steam machinery	956,355.96	424,538.45	604,503.58	384,307.01	159,662.03	322,719.25	6,780.39	2,111.65	1,621.12	1,347,443.36	586,312.13	928,843.95	22,524.77	2,885,124.21
Equipment of vessels (Nav.), 1911	....	....	....	....	....	....	....	....	....	....	....	....	7,802.00	7,802.00
Equipment of vessels (C. & R.), 1911	....	....	*479.27*	....	....					....	....	*479.27*	350.00	*129.27*
Equipment of vessels (S. E.), 1911	*277.95*	*125.49*	*1,674.81*	....	....	*110.41*	....	....	....	*277.95*	*125.49*	*1,785.22*	260.57	*1,928.09*
Ordnance and ordnance stores, 1911	....	....	*17.60*							....	....	*17.60*	23,307.42	23,289.82
Construction and repair, 1911	18.52	14.90	*95.05*	....	....	*290.48*	....	....	....	18.52	14.90	*385.53*	23,388.24	23,036.13

STATEMENT B—Continued.

TABLE 4.—*Statement showing cost of repairs to vessels (Title D) and the appropriations to which the expenditures are charged*—Continued.

RECAPITULATION BY APPROPRIATIONS—Continued.

Appropriations.	Wear and maintenance.			Changes and additions.			Casualties.			Total.			Public bills.	Grand total.
	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.	Labor.	Indirect.	Material.		
Steam machinery, 1911	$259.43	$110.59	*$363.41*			*$488.49*				$259.43	$110.59	*$851.90*	$32,078.49	$31,596.61
Equipment of vessels (C. & R.), 1910			1,976.00									1,976.00		1,976.00
Equipment of vessels (S. E.), 1910			*346.30*									*346.30*		*346.30*
Construction and repair, 1910													510.00	510.00
Steam machinery, 1910													111,845.00	111,845.00
Total	2,370,724.28	969,895.25	1,216,961.12	$1,845,653.00	$730,317.20	1,389,010.06	$45,692.63	$16,882.22	$14,329.05	4,262,069.91	1,717,094.67	2,620,300.23	263,295.76	8,862,760.57

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures.*

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Ajax:					
Equipment of vessels (C. & R.)	$2.00	$0.40	$0.09		$2.49
Construction and repair	53.71	17.05	4.20		74.96
Steam machinery	3.12	1.40			4.52
Total	58.83	18.85	4.29		81.97
Alabama:					
Construction and repair				$621.76	621.76
Alice:					
Equipment of vessels (Nav.)	3.52	1.06			4.58
Alert:					
Equipment of vessels (C. & R.)	5.28	3.37	1.28		9.93
Ordnance and ordnance stores	21.08	13.70	4.36		39.14
Total	26.36	17.07	5.64		49.07
Alexander:					
Equipment of vessels (C. & R.)	107.10	60.38	2.76		170.24
Construction and repair	13.36	10.69			24.05
Total	120.46	71.07	2.76		194.29
Ammen:					
Equipment of vessels (Nav.)	14.76	3.42			18.18
Equipment of vessels (C. & R.)	144.58	34.33	131.81		310.72
Equipment of vessels (S. E.)	38.33	11.17	78.95		128.45
Ordnance and ordnance stores	104.20	55.47	6.31		165.98
Construction and repair	95.97	41.59	17.50		155.06
Steam machinery	96.60	34.26	39.51		170.37
Total	494.44	180.24	274.08		948.76
Annapolis:					
Equipment of vessels (C. & R.)	3.89	1.26	.80		5.95
Arethusa:					
Equipment of vessels (S. E.)	12.88	3.86	1.22		17.96
Arkansas:					
Ordnance and ordnance stores				70.00	70.00
Atlanta:					
Construction and repair	81.28	32.12	2.73		116.13
Bailey;					
Equipment of vessels (S. E.)	10.08	5.04			15.12
Construction and repair	63.32	37.25	1.26		101.83
Total	73.40	42.29	1.26		116.95
Bainbridge:					
Equipment of vessels (S. E.)	9.92	5.17			15.09
Baltimore:					
Construction and repair	322.43	126.78	80.80		530.01
Steam machinery	9.68	3.23			12.91
Total	332.11	130.01	80.80		542.92
Barney:					
Equipment of vessels (C. & R.)	25.82	5.17	16.98		47.97
Barry:					
Construction and repair	11.46	6.30	.92		18.68
Biddle:					
Ordnance and ordnance stores	14.25	6.41	1.48		22.14
Birmingham:					
Equipment of vessels (C. & R.)	64.90	35.47	15.11		115.48
Equipment of vessels (S. & E.)	53.64	18.28	2.19	10.00	84.11
Ordnance and ordnance stores	82.70	30.97	13.35		127.02
Construction and repair	331.69	255.47	121.36		708.52
Steam machinery	205.21	121.15	17.49		343.85
Total	738.14	461.34	169.50	10.00	1,378.98

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Brutus:					
Equipment of vessels (Nav.)	$15.08	$2.80	$1.04		$18.92
Construction and repair	9.12	5.47	4.92		19.51
Steam machinery	3.52	.59	.06		4.17
Total	27.72	8.86	6.02		42.60
Buffalo:					
Equipment of vessels (Nav.)	6.56	2.12	5.41		14.09
Equipment of vessels (C. & R.)	3.92	1.96	22.70		28.58
Equipment of vessels (S. E.)	49.28	19.71	14.84		83.83
Construction and repair	778.52	431.45	293.25		1,503.22
Total	838.28	455.24	336.20		1,629.72
Burrows:					
Equipment of vessels (Nav.)	9.16	4.58	.41		14.15
Equipment of vessels (C. & R.)			1.26		1.26
Equipment of vessels (S. E.)	63.96	14.93	3.34		82.23
Ordnance and ordnance stores	116.04	68.12	.06		184.22
Construction and repair	119.67	52.41	23.61		195.69
Total	308.83	140.04	28.68		477.55
Caesar:					
Equipment of vessels (Nav.)	9.84	2.96			12.80
Equipment of vessels (C. & R.)	14.76	6.02			20.78
Equipment of vessels (S. E.)	2.46	1.23			3.69
Construction and repair	37.12	13.70	4.81		55.63
Steam machinery	23.42	7.03	.11		30.56
Total	87.60	30.94	4.92		123.46
California:					
Equipment of vessels (Nav.)	14.32	6.44	2.00		22.76
Equipment of vessels (S. & A.)	12.42	4.70	2.00		19.12
Equipment of vessels (C. & R.)	4.63	2.79			7.42
Equipment of vessels (S. E.)	586.32	265.62	140.48		992.42
Ordnance and ordnance stores	*1,271.28*	*954.11*	*548.66*		*2,774.06*
Construction and repair	711.85	320.45	254.34		1,295.64
Total	58.26	*345.11*	*149.84*		*436.69*
Castine:					
Equipment of vessels (S. E.)	25.04	7.51	6.24		38.79
Ordnance and ordnance stores	8.80	4.40	2.00		15.20
Construction and repair	502.71	186.35	226.71		915.77
Steam machinery	167.85	75.67	66.39		309.91
Total	704.40	273.93	301.34		1,279.67
Celtic:					
Equipment of vessels (S. E.)	11.41	4.67	.53		16.61
Construction and repair	12.16	6.18	2.01		20.35
Total	23.57	10.85	2.54		36.96
Chauncey:					
Equipment of vessels (Nav.)	8.74	3.60			12.34
Equipment of vessels (C. & R.)	24.44	34.22	2.64		61.30
Equipment of vessels (S. E.)	4.80	2.00			6.80
Ordnance and ordnance stores	13.75	6.88			20.63
Construction and repair	16.72	9.99	6.98		33.69
Steam machinery	11.16	5.58			16.74
Total	79.61	62.27	9.62		151.50
Chester:					
Equipment of vessels (C. & R.)	5.76	1.73			7.49
Equipment of vessels (S. E.)	127.73	38.63	98.87	$90.00	355.23
Ordnance and ordnance stores	211.68	94.58	6.55		312.81
Construction and repair	85.93	45.12	36.90		167.95
Steam machinery	22.79	10.50	.19		33.48
Total	453.89	190.56	142.51	90.00	876.96

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Cheyenne:					
Equipment of vessels (S. E.)	$26.48	$12.97	$2.52		$41.97
Ordnance and ordnance stores	378.12	253.03	140.61		771.76
Total	404.60	266.00	143.13		813.73
Chicago:					
Equipment of vessels (C. & R.)	12.04	3.01	3.04		18.09
Ordnance and ordnance stores	1,039.69	572.21	51.45		1,663.35
Construction and repair	65.01	35.60	20.24		120.85
Total	1,116.74	610.82	74.73		1,802.29
Cincinnati:					
Equipment of vessels (S. & A.)	3.75	2.13	.05		5.93
Colorado:					
Equipment of vessels (C. & R.)	13.04	3.26			16.30
Equipment of vessels (S. E.)	6.30	2.37	2.08		10.75
Ordnance and ordnance stores	51.29	23.61	14.50		89.40
Construction and repair	9.47	4.05	2.60		16.12
Steam machinery	4.68	2.18	.26		7.12
Total	84.78	35.47	19.44		139.69
Connecticut:					
Equipment of vessels (Nav.)	5.88	1.18	60.00		67.06
Equipment of vessels (C. & R.)	6.88	4.07		$7.00	17.95
Equipment of vessels (S. E.)	154.58	38.61	25.03	24.00	242.22
Ordnance and ordnance stores	104.16	33.43	33.48	90.00	261.07
Construction and repair	1,258.40	619.88	348.00		2,226.28
Steam machinery	41.50	12.92	35.34		89.76
Total	1,571.40	710.09	501.85	121.00	2,904.34
Constellation:					
Equipment of vessels (C. & R.)				255.00	255.00
Steam machinery	166.18	79.38	6.16		251.72
Total	166.18	79.38	6.16	255.00	506.72
Craven:					
Equipment of vessels (C. & R.)	79.02	15.80	42.88		137.70
Culgoa:					
Equipment of vessels (Nav.)	32.88	8.15	1.15		42.18
Equipment of vessels (C. & R.)	7.28	1.45	.54		9.27
Construction and repair	693.13	301.62	80.98		1,075.73
Steam machinery	133.91	60.52	10.67		205.10
Total	867.20	371.74	93.34		1,332.28
Cyclops:					
Equipment of vessels (Nav.)	5.64	2.82	1.00		9.46
Construction and repair	278.01	100.96	70.96		449.93
Steam machinery	78.33	38.31	10.51		127.15
Total	361.98	142.09	82.47		586.54
Davis:					
Equipment of vessels (S. E)	9.86	4.48	3.74		18.08
Delaware:					
Equipment of vessels (Nav.)	15.82	7.22			23.04
Equipment of vessels (C. & R.)	73.70	26.65	10.69		111.04
Equipment of vessels (S. E.)	53.46	13.02	9.30		75.78
Ordnance and ordnance stores				319.00	319.00
Construction and repair	96.33	43.34	61.57	4.00	205.24
Steam machinery	140.13	53.59	37.66		231.38
Total	379.44	143.82	119.22	323.00	965.48
Denver:					
Equipment of vessels (C. & R.)	10.59	3.71	2.75		17.05
Construction and repair	17.64	10.84	.58		29.06
Total	28.23	14.55	3.33		46.11

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Contined.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Des Moines:					
Equipment of vessels (Nav.)	$18.33	$8.22			$26.55
Construction and repair	318.24	169.49	$10.20		497.93
Steam machinery	24.66	9.66	41.25		75.57
Total	361.23	187.37	51.45		600.05
Dixie:					
Equipment of vessels (Nav.)	5.16	1.81			6.97
Equipment of vessels (C. & R.)	40.52	4.65	29.14	$200.00	274.31
Equipment of vessels (S. E.)	3.88	1.36			5.24
Ordnance and ordnance stores	16.72	4.18	.31		21.21
Construction and repair	836.17	341.57	253.62		1,431.36
Steam machinery	113.86	42.16	16.96		172.98
Total	1,016.31	395.73	300.03	200.00	1,912.07
Dolphin:					
Equipment of vessels (C. & R.)	13.56	3.34	.79		17.69
Equipment of vessels (S. E.)	43.15	9.14	29.74		82.03
Ordnance and ordnance stores	7.26	2.18			9.44
Construction and repair	875.10	426.54	281.29		1,582.93
Steam machinery	1,216.63	342.79	50.93		1,610.35
Total	2,155.70	783.99	362.75		3,302.44
Drayton:					
Equipment of vessels (C. & R.)			.51		.51
Equipment of vessels (S. E.)	84.35	22.53	43.38		150.26
Ordnance and ordnance stores	22.64	8.49	1.87		33.00
Construction and repair	126.56		77.93		204.49
Total	233.55	31.02	123.69		388.26
Eagle:					
Equipment of vessels (Nav.)	32.68	5.22	2.50		40.40
Equipment of vessels (C. & R.)	41.61	28.77	12.84		83.22
Equipment of vessels (S. E.)	56.29	18.12	10.31		84.72
Construction and repair	136.83	56.31	65.03		258.17
Steam machinery	82.76	25.01	4.49		112.26
Total	350.17	133.43	95.17		578.77
Farragut:					
Equipment of vessels (Nav.)	1.08	.49			1.57
Equipment of vessels (C. & R.)	3.47	1.21	.90		5.58
Equipment of vessels (S. E.)	58.53	25.59	.18		84.30
Ordnance and ordnance stores	298.67	154.14	17.79		470.60
Steam machinery	20.72	7.66	14.81		43.19
Total	382.47	189.09	33.68		605.24
Florida:					
Equipment of vessels (Nav.)	37.34	9.33	10.70		57.37
Equipment of vessels (C. & R.)				9.60	9.60
Equipment of vessels (S. E.)	42.76	12.59	16.85		72.20
Ordnance and ordnance stores	289.65	108.36	17.35		415.36
Construction and repair	221.20	142.56	77.89		441.65
Steam machinery	164.42	64.14	132.78		361.34
Total	755.37	336.98	255.57	9.60	1,357.52
Flusser:					
Equipment of vessels (C. & R.)	1.64	.74			2.38
Equipment of vessels (S. E.)	63.23	22.54	11.64		97.41
Ordnance and ordnance stores	218.76	98.88	3.06		320.70
Construction and repair	152.22	65.14	37.71		255.07
Steam machinery	80.63	25.11	10.34		116.08
Total	516.48	212.41	62.75		791.64
Fortune:					
Equipment of vessels (C. & R.)	5.83	2.04	1.00		8.87

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Fox:					
Ordnance and ordnance stores	$173.36	$158.72	$4.45	...	$336.53
Construction and repair	74.80	41.39	13.86	...	130.05
Total	248.16	200.11	18.31	...	466.58
Franklin:					
Equipment of vessels (Nav.)	1.72	.77	2.87	$4.75	10.11
Equipment of vessels (S. E.)	55.36	16.60	3.68	...	75.64
Construction and repair	7.81	2.02	...	...	9.83
Steam machinery	115.99	79.25	21.76	...	217.00
Total	180.88	98.64	28.31	4.75	312.58
General Alva:					
Construction and repair	83.41	45.98	23.94	...	153.33
Georgia:					
Equipment of vessels (Nav.)	11.75	4.88	.06	...	16.69
Equipment of vessels (C. & R.)	107.43	68.85	108.08	...	284.36
Ordnance and ordnance stores	1,317.21	507.07	149.55	...	1,973.83
Construction and repair	9.18	5.51	1.75	...	16.44
Steam machinery	31.10	11.88	6.15	...	49.13
New batteries, ships of Navy	5,665.60	2,217.65	438.97	...	8,322.22
Total	7,142.27	2,815.84	704.56	...	10,662.67
Glacier:					
Equipment of vessels (Nav.)	3.84	2.69	...	...	6.53
Equipment of vessels (S. & A.)	11.26	5.07	...	...	16.33
Equipment of vessels (S. E.)	110.53	51.35	108.44	...	270.32
Construction and repair	8.53	5.53	2.48	...	16.54
Steam machinery	8.28	5.47	70.50	...	84.25
Total	142.44	70.11	181.42	...	393.97
Gloucester:					
Steam machinery	164.04	71.02	49.55	...	284.61
Goldsborough:					
Equipment of vessels (C. & R.)	53.52	20.05	4.34	...	77.91
Equipment of vessels (S. E.)	65.34	32.46	43.14	...	140.94
Ordnance and ordnance stores	.44	1.32	...	...	1.76
Construction and repair	32.72	18.23	6.50	...	57.45
Steam machinery	70.18	47.62	16.00	...	133.80
Total	222.20	119.68	69.98	...	411.86
Granite State:					
Equipment of vessels (C. & R.)	32.16	16.08	42.51	...	90.75
Construction and repair	1,331.74	766.18	390.69	...	2,488.61
Steam machinery	424.49	200.78	367.81	...	993.08
Total	1,788.39	983.04	801.01	...	3,572.44
Hartford:					
Construction and repair	148.57	54.67	91.38	...	294.62
Hancock:					
Equipment of vessels (Nav.)	5.64	2.82	...	...	8.46
Equipment of vessels (S. & A.)	2.00	.67	.16	54.00	56.83
Equipment of vessels (C. & R.)	8.75	2.19	2.96	15.00	28.90
Construction and repair	34.24	9.39	9.24	...	52.87
Steam machinery	5.28	2.64	2.24	...	10.16
Total	55.91	17.71	14.60	69.00	157.22
Hannibal:					
Construction and repair	175.72	82.98	39.83	...	298.53
Steam machinery	28.94	13.91	30.32	...	73.17
Total	204.66	96.89	70.15	...	371.70

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Hector:					
Equipment of vessels (Nav.)	$4.34	$1.31			$5.65
Equipment of vessels (C. & R.)	145.32	85.60	$141.55		372.47
Construction and repair	207.21	71.87	28.60		307.68
Steam machinery	40.45	22.32	1.05		63.82
Total	397.32	181.10	171.20		749.62
Hopkins:					
Equipment of vessels (Nav.)	19.68	7.00	.06		26.74
Equipment of vessels (C. & R.)	34.10	15.34	1.94		51.38
Equipment of vessels (S. E.)	46.24	20.81	15.55		82.60
Ordnance and ordnance stores	563.86	328.87	125.72		1,018.45
Construction and repair	250.77	143.71	88.55		483.03
Steam machinery	5.97	3.15			9.12
Total	920.62	518.88	231.82		1,671.32
Hull:					
Ordnance and ordnance stores	69.49	36.73	19.33		125.55
Construction and repair	334.03	179.46	102.92		616.41
Steam machinery	48.64	26.08	42.47		117.19
Total	452.16	242.27	164.72		859.15
Idaho:					
Equipment of vessels (C. & R.)	120.37	47.08	7.14		174.59
Ordnance and ordnance stores	1,395.52	671.93	93.97		2,161.42
Construction and repair	507.60	417.26	149.93		1,074.79
Steam machinery	69.20	24.43	8.13		101.76
Total	2,092.69	1,160.70	259.17		3,512.56
Illinois:					
Ordnance and ordnance stores	198.09	74.71	.50		273.30
Independence:					
Equipment of vessels (S. & A.)	43.32	17.10	6.69		67.11
Construction and repair	634.96	308.33	274.23		1,217.52
Steam machinery	602.53	301.07	1,805.38		2,708.98
Total	1,280.81	626.50	2,086.30		3,993.61
Indiana:					
Equipment of vessels (C. & R.)	21.36	4.95	4.18		30.49
Equipment of vessels (S. E.)	39.45	20.78	7.57		67.80
Construction and repair	102.72	65.78	34.93		203.43
Steam machinery	35.79	18.12	.36		54.27
Total	199.32	109.63	47.04		355.99
Intrepid:					
Equipment of vessels (Nav.)	2.00	.80	.34		3.14
Construction and repair	14.71	6 04	1.35		22.10
Total	16.71	6.84	1.69		25.24
Iowa:					
Equipment of vessels (C. & R.)	22.29	5.57	3.60		31.46
Equipment of vessels (S. E.)				$16.00	16.00
Construction and repair	277.84	189.27	94.86		561.97
Steam machinery	116.09	44.01	14.59	19.00	193.69
Total	416.22	238.85	113.05	35.00	803.12
Iroquois:					
Equipment of vessels (Nav.)	19.82	12.68	5.82		38.32
Justin:					
Equipment of vessels (Nav.)	15.80	7.11	.39		23.30
Equipment of vessels (S. & A.)	13.12	5.90			19.02
Equipment of vessels (C. & R.)	51.16	32.97	6.16		90.29
Equipment of vessels (S. E.)	3.84	1.73	4.98		10.55
Construction and repair	46.21	20.03	8.18		74.42
Steam machinery	4.08	1.84			5.92
Total	134.21	69.58	19.71		223.50

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Kansas:					
Equipment of vessels (Nav.)	...	...	...	$83.60	$83.60
Equipment of vessels (C. & R.)	$10.21	$4.20	$0.39	...	14.80
Ordnance and ordnance stores	95.89	52.29	72.02	...	220.20
Construction and repair	712.50	288.36	280.65	...	1,281.51
Total	818.60	344.85	353.06	83.60	1,600.11
Kentucky:					
Steam machinery	59.13	26.42	...	...	85.55
Lamson:					
Equipment of vessels (C. & R.)	17.48	10.34	1.03	...	28.85
Equipment of vessels (S. E.)	78.64	23.00	12.56	...	114.20
Construction and repair	363.40	160.85	97.09	...	621.34
Steam machinery	147.76	103.34	36.24	...	287.34
Total	607.28	297.53	146.92	...	1,051.73
Lancaster:					
Construction and repair	26.60	11.97	252.84	...	291.41
Lawrence:					
Equipment of vessels (Nav.)	6.06	2.63	1.84	...	10.53
Equipment of vessels (C. & R.)	10.99	4.89	23.37	...	39.25
Equipment of vessels (S. E.)	167.56	60.39	9.24	...	237.19
Ordnance and ordnance stores	248.94	143.47	76.32	...	468.73
Construction and repair	193.60	82.36	59.02	...	334.98
Steam machinery	.66	.20	...	...	.86
Total	627.81	293.94	169.79	...	1,091.54
Lebanon:					
Equipment of vessels (C. & R.)	78.67	29.46	70.23	...	178.36
Construction and repair	159.05	60.80	40.48	...	260.33
Total	237.72	90.26	110.71	...	438.69
Leonidas:					
Construction and repair	81.37	47.81	11.62	...	140.80
Louisiana:					
Equipment of vessels (C. & R.)	78.00	23.40	23.87	...	125.27
Ordnance and ordnance stores	244.78	136.72	11.90	...	393.40
Construction and repair	1,277.55	606.82	304.53	...	2,188.90
Steam machinery	46.07	24.45	8.52	...	79.04
Total	1,646.40	791.39	348.82	...	2,786.61
McCall:					
Equipment of vessels (Nav.)	33.46	13.94	6.63	...	54.03
Equipment of vessels (C. & R.)	...	...	.51	...	.51
Equipment of vessels (S. E.)	20.47	...	...	...	20.47
Ordnance and ordnance stores	59.22	30.18	11.18	...	100.58
Construction and repair	6.48	2.53	1.43	...	10.44
Steam machinery	16.80	7.99	59.50	...	84.29
Total	136.43	54.64	79.25	...	270.32
Machias:					
Equipment of vessels (C. & R.)	26.56	7.73	10.45	...	44.74
Construction and repair	242.09	87.95	33.74	...	363.78
Total	268.65	95.68	44.19	...	408.52
Maine:					
Equipment of vessels (S. & A.)	3.52	.49	...	...	4.01
Ordnance and ordnance stores	125.68	62.84	...	...	188.52
Construction and repair	98.19	53.03	6.01	...	157.23
Steam machinery	...	...	60.00	...	60.00
Total	227.39	116.36	66.01	...	409.76

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Marblehead:					
Equipment of vessels (Nav.)	$13.52	$6.76	$0.51		$20.79
Equipment of vessels (S. E.)	*13.52*	*6.76*	*.51*		*20.79*
Ordnance and ordnance stores	24.32	25.54			49.86
Steam machinery	.32	.20			.52
Total	24.64	25.74			50.38
Marietta:					
Equipment of vessels (Nav.)	34.16	8.89	5.30		48.35
Equipment of vessels (C. & R.)	14.08	5.82			19.90
Ordnance and ordnance stores	11.09	5.16			16.25
Construction and repair	221.52	90.04	63.96		375.52
Steam machinery	264.89	122.10	7.54		394.53
Total	545.74	232.01	76.80		854.55
Mars:					
Equipment of vessels (C. & R.)	20.12	5.76	256.69		282.57
Construction and repair	256.30	93.44	23.07		372.81
Steam machinery	37.86	23.06	3.49		64.41
Total	314.28	122.26	283.25		719.79
Maryland:					
Equipment of vessels (Nav.)	14.81	5.22	13.46		33.49
Equipment of vessels (C. & R.)	48.69	29.27	10.56		88.52
Equipment of vessels (S. E.)	650.27	233.53	294.87		1,178.67
Ordnance and ordnance stores	581.96	305.73	70.27		957.96
Construction and repair	838.71	494.53	354.70		1,687.94
Steam machinery	791.86	375.30	240.78		1,407.94
Total	2,926.30	1,443.58	984.64		5.354.52
Massachusetts:					
Equipment of vessels (C. & R.)	19.76	4.94	3.52		28.22
Equipment of vessels (S. E.)	10.80	4.32			15.12
Ordnance and ordnance stores	5.68	2.27	5.40		13.35
Construction and repair	22.79	17.10	10.05		49.94
Total	59.03	28.63	18.97		106.63
Massasoit:					
Equipment of vessels (C. & R.)	3.55		1.26		4.81
Mayflower:					
Equipment of vessels (Nav.)	11.64	3.84	.55		16.03
Equipment of vessels (C. & R.)	17.84	4.46	3.72		26.02
Equipment of vessels (S. E.)	43.98	8.83	4.42		57.23
Ordnance and ordnance stores				$37.00	37.00
Construction and repair	823.79	357.23	120.84		1,301.86
Steam machinery	463.13	148.49	13.51		625.13
Total	1,360.38	522.85	143.04	37.00	2,063.27
Mayrant:					
Equipment of vessels (C. & R.)	4,29	1.26	1.00		6.55
Equipment of vessels (S. E.)	193.11	63.86	22.99		279.96
Construction and repair	149.61	85.91	40.42		275.94
Steam machinery	149.54	75.72	33.22		258.48
Total	496.55	226.75	97.63		820.93
Michigan:					
Equipment of vessels (S. E.)	102.78	27.61	14.52	75.00	219.91
Ordnance and ordnance stores	15.98	7.99		90.00	113.97
Construction and repair	470.66	303.00	118.08		891.74
Steam machinery	32.77	8.77	6.08		47.62
Total	622.19	347.37	138.68	165.00	1,273.24
Milwaukee:					
Ordnance and ordnance stores	93.84	70.38	.78		165.00

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Mississippi:					
Equipment of vessels (Nav.)	$9.12	$4.10	....	$50.00	$63.22
Equipment of vessels (C. & R.)	102.66	44.68	$206.01	....	353.35
Equipment of vessels (S. E.)	55.52	19.83	485.47	7.40	568.22
Ordnance and ordnance stores	230.12	120.78	15.98	90.00	456.88
Construction and repair	872.13	589.13	271.70	....	1,732.96
Steam machinery	554.99	241.01	25.39	....	821.39
Total	1,824.54	1,019.53	1,004.55	147.40	3,996.02
Missouri:					
Equipment of vessels (C. & R.)	198.21	66.83	58.48	....	323.52
Equipment of vessels (S. E.)	2.00	.67	358.78	....	361.45
Ordnance and ordnance stores	137.76	89.93	34.12	....	261.81
Construction and repair	64.72	42.91	73.64	....	181.27
Steam machinery	11.10	4.47	7.37	....	22.94
Total	413.79	204.81	532.39	....	1,150.99
Minnesota:					
Equipment of vessels (Nav.)	....	....	....	50.00	50.00
Equipment of vessels (C. & R.)	883.33	542.95	627.33	....	2,053.61
Equipment of vessels (S. E.)	18.66	7.39	2.66	....	28.71
Ordnance and ordnance stores	1.76	.62	....	141.00	143.38
Construction and repair	971.25	606.98	234.34	....	1,812.57
Steam machinery	40.20	15.80	2.93	....	58.93
Total	1,915.20	1,173.74	867.26	191.00	4,147.20
Modoc:					
Equipment of vessels (C. & R.)	4.36	2.16	8.68	....	15.20
Mohawk:					
Steam machinery	1.28	1.15	.56	....	2.99
Mohican:					
Construction and repair	85.07	69.34	43.01	....	197.42
Steam machinery	116.85	48.85	42.92	....	208.62
Total	201.92	118.19	85.93	....	406.04
Monadnock:					
Equipment of vessels (C. & R.)	20.34	10.86	11.11	....	42.31
Ordnance and ordnance stores	37.44	32.67	8.88	....	78.99
Construction and repair	2.92	1.61	....	....	4.53
Steam machinery	204.26	152.57	46.86	....	403.69
Total	264.96	197.71	66.85	....	529.52
Monaghan:					
Equipment of vessels (C. & R.)	....	....	1.51	....	1.51
Equipment of vessels (S. E.)	41.87	25.12	....	....	66.99
Construction and repair	3.68	2.27	1.20	....	7.15
Total	45.55	27.39	2.71	....	75.65
Monterey:					
Equipment of vessels (S. E.)	8.02	5.75	1.68	....	15.45
Montana:					
Equipment of vessels (Nav.)	4.40	1.10	8.99	....	14.49
Equipment of vessels (C. & R.)	37.64	21.81	11.56	....	71.01
Ordnance and ordnance stores	21.12	9.93	....	90.00	121.05
Construction and repair	2,069.10	825.32	683.02	....	3,577.44
Steam machinery	572.89	253.59	190.16	....	1,016.64
Total	2,705.15	1,111.75	893.73	90.00	4,800.63
Montgomery:					
Ordnance and ordnance stores	15.84	4.75	....	....	20.59
Construction and repair	136.20	83.39	30.93	....	250.52
Steam machinery	47.89	23.08	3.20	....	74.17
Total	199.93	111.22	34.13	....	345.28

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Nashville:					
Equipment of vessels (C. & R.)	$2.00	$0.40			$2.40
Ordnance and ordnance stores	406.55	140.21	$30.50		577.26
Construction and repair	395.93	248.69	71.54	$0.60	716.76
Steam machinery	45.92	20.98	2.06		68.96
Total	850.40	410.28	104.10	.60	1,365.38
Nebraska:					
Equipment of vessels (C. & R.)	83.38	29.22	44.50		157.10
Equipment of vessels (S. E.)	49.68	16.59	13.59		79.86
Ordnance and ordnance stores	591.46	237.78	61.66		890.90
Construction and repair	117.58	46.45	14.30		178.33
Steam machinery	324.20	111.43	36.60		472.23
New batteries, ships of the Navy	893.68	438.89	4.12		1,336.69
Total	2,059.98	880.36	174.77		3,115.11
Neptune:					
Equipment of vessels (C. & R.)	170.27	94.23	52.41		316.91
Construction and repair	528.48	207.03	137.31		872.82
Steam machinery	153.30	82.23	39.84		275.37
Total	852.05	383.49	229.56		1,465.10
Nero:					
Equipment of vessels (C. & R)	10.96	6.58	1.65		19.19
Construction and repair	16.94	8.78	11.14		36.86
Steam machinery	7.20	4.32	.08		11.60
Contingent supplies and accounts				15.00	15.00
Total	35.10	19.68	12.87	15.00	82.65
Newark:					
Equipment of vessels (C. & R.)			75.30		75.30
New Hampshire:					
Equipment of vessels (Nav.)	7.52	3.76			11.28
Equipment of vessels (S. E.)	47.20	14.85	20.27	35.00	117.32
Ordnance and ordnance stores	1,125.01	497.28	400.34		2,022.63
Construction and repair	1,688.54	738.41	651.43	12.00	3,090.38
Steam machinery	377.67	169.04	60.82		607.53
Total	3,245.94	1,423.34	1,132.86	47.00	5,849.14
New Jersey:					
Equipment of vessels (S. E.)	95.44	32.80	50.55		178.79
Ordnance and ordnance stores	693.99	231.38	359.89		1,285.26
Construction and repair	68.43	27.97	26.48		122.88
Steam machinery	350.16	170.61	13.88		534.65
Total	1,208.02	462.76	450.80		2,121.58
New Orleans:					
Equipment of vessels (C. & R.)	7.35	2.57	1.80		11.72
Steam machinery	2.06	1.15			3.21
Total	9.41	3.72	1.80		14.93
Newport:					
Equipment of vessels (S. E.)	2.24	.67			2.91
Construction and repair	623.40	297.83	147.26		1,068.49
Total	625.64	298.50	147.26		1,071.40
North Carolina:					
Equipment of vessels (Nav.)	1.54	.57			2.11
Equipment of vessels (C. & R.)			86.53		86.53
Ordnance and ordnance stores	174.85	62.48	11.42	90.00	338.75
Construction and repair	671.32	263.14	273.76		1,208.22
Total	847.71	326.19	371.71	90.00	1,635.61

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
North Dakota:					
Equipment of vessels (Nav.)	$27.44	$7.88	$6.34		$41.66
Equipment of vessels (C. & R.)	11.52	2.88	1.36		15.76
Equipment of vessels (S. E.)	30.22	7.54	3.48		41.24
Ordnance and ordnance stores	13.90	7.42	8.28	$335.00	364.60
Construction and repair	119.22	45.29	30.81		195.32
Steam machinery	297.20	135.44	408.67		841.31
Total	499.50	206.45	458.94	335.00	1,499.89
Ohio:					
Equipment of vessels (Nav.)	7.04	2.83	2.59		12.46
Equipment of vessels (C. & R.)	2.00	.67	2.51		5.18
Equipment of vessels (S. E.)	31.12	9.65	1.46	66.00	108.23
Ordnance and ordnance stores	288.98	103.06	31.16		423.20
Construction and repair	150.48	31.62	47.60		229.70
Steam machinery	27.48	9.16	1.18		37.82
Total	507.10	156.99	86.50	66.00	816.59
Oregon:					
Equipment of vessels (C. & R.)	10.44	6.70	1.54		18.68
Equipment of vessels (S. E.)	6.36	2.54	.15		9.05
Ordnance and ordnance stores	314.20	223.22	6.80		544.22
Construction and repair	37.92	27.48	18.82		84.22
Total	368.92	259.94	27.31		656.17
Osceola:					
Construction and repair	137.40		30.61		168.01
Paducah:					
Equipment of vessels (Nav.)	17.36	2.72	1.00		21.08
Equipment of vessels (C. & R.)	42.23	6.46	5.97		54.66
Equipment of vessels (S. E.)	216.92	39.46	45.69		302.07
Ordnance and ordnance stores	6.16	.92	4.07		11.15
Construction and repair	580.26	200.77	109.30		890.33
Steam machinery	19.76	4.84	36.79		61.39
Total	882.69	255.17	202.82		1,340.68
Panther:					
Equipment of vessels (C. & R.)	274.55	103.37	23.96		401.88
Equipment of vessels (S. E.)	24.98	6.12	9.16	23.00	63.26
Construction and repair	259.81	127.38	68.91		456.10
Steam machinery	100.04	34.86	17.89		152.79
Total	659.38	271.73	119.92	23.00	1,074.03
Patapsco:					
Equipment of vessels (Nav.)	4.92	1.15	.50		6.57
Equipment of vessels (S. E.)	31.12	6.45	16.83		54.40
Total	36.04	7.60	17.33		60.97
Patterson:					
Equipment of vessels (Nav.)	18.80	10.72	.35		29.87
Ordnance and ordnance stores	5.40	3.24			8.64
Construction and repair	14.28	10.51	4.08		28.87
Total	38.48	24.47	4.43		67.38
Paulding:					
Equipment of vessels (Nav.)	25.12	5.02	.75		30.89
Equipment of vessels (C. & R.)	7.52	1.88	8.90		18.30
Equipment of vessles (S. E.)	382.24	97.40	148.19		627.83
Ordnance and ordnance stores	43.28	18.52	4.71		66.51
Construction and repair	111.01	53.61	23.35		187.97
Steam machinery	105.82	47.02	5.69		158.53
Total	674.99	223.45	191.59		1,090.03

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Paul Jones:					
Equipment of vessels (Nav.)	$12.66	$5.26	$2.73	...	$20.65
Equipment of vessels (S. E.)	63.74	29.02	2.15	...	94.91
Ordnance and ordnance stores	124.41	70.65	8.16	...	203.22
Construction and repair	186.61	111.27	62.71	...	360.59
Steam machinery	315.49	190.24	309.80	...	815.53
Total	702.91	406.44	385.55	...	1,494.90
Pawtucket:					
Construction and repair	6.04	2.46	2.37	...	10.87
Pennsylvania (Pittsburgh):					
Equipment of vessels (Nav.)	10.44	7.22	.35	...	18.01
Equipment of vessels (C. & R.)	148.69	92.07	70.96	...	311.72
Equipment of vessels (S. E.)	1,346.00	663.18	1,449.36	...	3,458.54
Ordnance and ordnance stores	2,343.63	1,295.31	274.79	...	3,913.73
Construction and repair	1,249.85	644.72	244.82	...	2,139.39
Steam machinery	115.89	75.34	113.79	...	305.02
Total	5,214.50	2,777.84	2,154.07	...	10,146.41
Peoria:					
Construction and repair	158.36	70.70	13.95	...	243.01
Perkins:					
Equipment of vessels (C. & R.)	...	...	1.01	...	1.01
Equipment of vessels (S. E.)	74.24	16.00	44.13	...	134.37
Ordnance and ordnance stores	7.20	3.60	...	...	10.80
Construction and repair	90.23	61.06	13.87	...	165.16
Steam machinery	139.95	69.82	73.07	...	282.84
Total	311.62	150.48	132.08	...	594.18
Perry:					
Equipment of vessels (C. & R.)	3.87	1.74	...	...	5.61
Equipment of vessels (S. E.)	21.34	9.55	2.28	...	33.17
Ordnance and ordnance stores	71.46	42.54	.90	...	114.90
Construction and repair	30.26	14.65	14.57	...	59.48
Steam machinery	106.52	46.94	52.94	...	206.40
Total	233.45	115.42	70.69	...	419.56
Petrel:					
Equipment of vessels (Nav.)	...	...	5.75	...	5.75
Construction and repair	15.75	3.73	4.00	...	23.48
Total	15.75	3.73	9.75	...	29.23
Philadelphia:					
Steam machinery	5.66	2.45	.79	...	8.90
Contingent supplies and accounts	18.40	13.28	...	...	31.68
Total	24.06	15.73	.79	...	40.58
Piscataqua:					
Equipment of vessels (S. & A.)	.22	.14	...	...	.36
Equipment of vessels (C. & R.)	3.86	1.16	...	...	5.02
Equipment of vessels (S. E)	3.20	2.24	1.69	...	7.13
Total	7.28	3.54	1.69	...	12.51
Porter:					
Construction and repair	64.79	31.97	17.92	...	114.68
Potomac:					
Equipment of vessels (C. & R.)	11.14	3.89	.59	...	15.62
Construction and repair	99.63	44.09	27.90	...	171.62
Steam machinery	9.05	4.44	...	...	13.49
Total	119.82	52.42	28.49	...	200.73
Prairie:					
Equipment of vessels (S. E.)	59.16	19.72	39.13	...	118.01
Construction and repair	340.64	134.65	52.64	...	527.93
Total	399.80	154.37	91.77	...	645.94

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Preble:					
Equipment of vessels (Nav.)	$25.82	$11.53	$0.13		$37.48
Equipment of vessels (C. & R.)	2.00	.70	12.58		15.28
Equipment of vessels (S. E.)	18.41	7.00	33.21		58.62
Ordnance and ordnance stores	442.41	229.56	84.26		756.23
Construction and repair	60.63	35.84	26.05		122.52
Steam machinery	188.59	95.70	77.40		361.69
Total	737.86	380.33	233.63		1,351.82
Preston:					
Ordnance and ordnance stores	.88	.70			1.58
Construction and repair	83.28	34.44	18.90		136.62
Steam machinery	3.52	1.76			5.28
Total	87.68	36.90	18.90		143.48
Princeton:					
Equipment of vessels (C. & R.)	128.35	62.19	22.54		213.08
Equipment of vessels (S. E.)	24.84	7.62	6.48		38.94
Construction and repair	169.14	72.03	66.78		307.95
Steam machinery	66.80	21.32	10.24		98.36
Total	389.13	163.16	106.04		658.33
Prometheus:					
Equipment of vessels (C. & R.)	9.94	7.83	189.41		207.18
Construction and repair	164.99	64.31	56.97		286.27
Steam machinery	19.66	8.48	3.55		31.69
Total	194.59	80.62	249.93		525.14
Quiros:					
Equipment of vessels (C. & R.)	5.72	4.63			10.35
Steam machinery	1.97	1.08			3.05
Total	7.69	5.71			13.40
Rainbow:					
Equipment of vessels (Nav.)	1.96	1.08			3.04
Equipment of vessels (S. & A.)	2.28	1.69			3.97
Equipment of vessels (C. & R.)	5.48	3.01			8.49
Ordnance and ordnance stores	8.16	2.91			11.07
Construction and repair	19.16	23.45	5.93		48.54
Steam machinery	1.47	.81			2.28
Total	38.51	32.95	5.93		77.39
Raleigh:					
Construction and repair	14.22	8.82	5.86		28.90
Steam machinery	96.76	55.70	4.37		156.83
Total	110.98	64.52	10.23		185.73
Ranger:					
Construction and repair	53.01	32.40	268.40		353.81
Steam machinery	70.54	37.08	16.77		124.39
Total	123.55	69.48	285.17		478.20
Reid:					
Equipment of vessels (S. E.)	64.29	26.42	14.14		104.85
Construction and repair	210.93	98.04	65.50		374.47
Steam machinery	68.01	20.22	10.32		98.55
Total	343.23	144.68	89.96		577.87
Rhode Island:					
Equipment of vessels (C. & R.)	55.40	26.68	78.06		160.14
Equipment of vessels (S. E.)	486.82	163.91	273.13	$132.00	1,055.86
Ordnance and ordnance stores	3,362.88	1,264.96	986.07	160.00	5,773.91
Construction and repair	328.41	181.55	78.67		588.63
Steam machinery	23.96	7.99	102.81		134.76
New batteries, ships of the Navy	7,117.54	2,584.39	880.94		10,582.87
Total	11,375.01	4,229.48	2,399.68	292.00	18,296.17

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Rodgers:					
Ordnance and ordnance stores	$11.58	$4.39	....	....	$15.97
Roe:					
Equipment of vessels (Nav.)	38.08	9.45	$6.11	....	53.64
Equipment of vessels (S. E.)	84.24	16.85	33.00	....	134.09
Ordnance and ordnance stores	94.43	37.63	6.63	....	138.69
Total	216.75	63.93	45.74	....	326.42
Rowan:					
Equipment of vessels (C. & R.)	19.52	9.54	....	....	29.06
Equipment of vessels (S. E.)	6.60	2.97	....	....	9.57
Total	26.12	12.51	....	....	38.63
Salem:					
Equipment of vessels (Nav.)	10.96	5.48	....	....	16.44
Equipment of vessels (C. & R.)	9.40	5.64	41.81	....	56.85
Equipment of vessels (S. E.)	81.50	29.09	109.16	....	219.75
Ordnance and ordnance stores	877.76	425.31	90.26	....	1,393.33
Steam machinery	15.16	5.06	10.36	....	30.58
Total	994.78	470.58	251.59	....	1,716.95
Samoset:					
Equipment of vessels (Nav.)	.72	.32	....	....	1.04
San Francisco:					
Equipment of vessels (C. & R.)	8.04	3.36	2.88	....	14.28
Equipment of vessels (S. E.)	41.04	20.52	7.44	....	69.00
Construction and repair	131.74	59.91	35.47	....	227.12
Steam machinery	197.72	129.96	50.30	....	377.98
Total	378.54	213.75	96.09	....	688.38
Saratoga:					
Equipment of vessels (Nav.)	5.59	3.07	....	....	8.66
Equipment of vessels (C. & R.)	49.13	58.95	34.77	....	142.85
Equipment of vessels (S. E.)	143.69	126.58	69.02	....	339.29
Construction and repair	31.85	21.79	2.64	....	56.28
Steam machinery	18.48	27.00	1.71	....	47.19
Total	248.74	237.39	108.14	....	594.27
Saturn:					
Equipment of vessels (S. & A.)	1.62	.72	....	....	2.34
Construction and repair	.50	.15	....	....	.65
Total	2.12	.87	....	....	2.99
Scorpion:					
Steam machinery	1.41	.47	....	....	1.88
Severn:					
Construction and repair	1,017.29	388.21	355.05	....	1,760.55
Steam machinery	314.91	159.72	80.40	....	555.03
Total	1,332.20	547.93	435.45	....	2,315.58
Smith:					
Equipment of vessels (Nav.)	17.71	6.06	.93	....	24.70
Construction and repair	364.54	143.83	102.39	....	610.76
Steam machinery	15.61	6.71	....	....	22.32
Total	397.86	156.60	103.32	....	657.78
Solace:					
Equipment of vessels (S. E.)	188.56	41.08	36.62	....	266.26
Construction and repair	448.71	208.47	106.79	....	763.97
Steam machinery	65.13	23.90	19.64	....	108.67
Medical department	15.22	4.57	.69	....	20.48
Total	717.62	278.02	163.74	....	1,159.38

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
South Carolina:					
Equipment of vessels (C. & R.)	$23.96	$6.39	$4.04		$34.39
Equipment of vessels (S. E.)	535.40	167.92	544.55		1,247.87
Ordnance and ordnance stores				$90.00	90.00
Construction and repair	209.47	99.70	98.04		407.21
Steam machinery	3.72	.77	8.48		12.97
Total	772.55	274.78	655.11	90.00	1,792.44
South Dakota:					
Equipment of vessels (Nav.)	6.00	2.49			8.49
Equipment of vessels (S. & A.)	11.34	5.10			16.44
Equipment of vessels (C. & R.)	78.59	28.07	146.11		252.77
Equipment of vessels (S. E.)	127.38	38.22	121.83		287.43
Ordnance and ordnance stores	577.81	278.60	33.03		889.44
Construction and repair	1,259.75	681.11	502.80		2,443.66
Steam machinery	215.38	92.73	42.38		350.49
Total	2,276.25	1,126.32	846.15		4,248.72
Stewart:					
Equipment of vessels (Nav.)	4.41	2.21			6.62
Equipment of vessels (S. & A.)	10.73	5.08	2.00		17.81
Equipment of vessels (C. & R.)	99.11	35.85	94.01		228.97
Equipment of vessels (S. E.)	26.92	12.12	4.95		43.99
Ordnance and ordnance stores	113.52	60.88	2.51		176.91
Construction and repair	232.27	125.46	84.67		442.40
Steam machinery	251.02	138.06	34.52		423.60
Total	737.98	379.66	222.66		1,340.30
Sterrett:					
Equipment of vessels (C. & R.)			1.01		1.01
Equipment of vessels (S. E.)	148.72	45.93	28.16		222.81
Steam machinery	20.64	10.25			30.89
Total	169.36	56.18	29.17		254.71
Stringham:					
Equipment of vessels (C. & R.)	18.08	4.59	48.08		70.75
Ordnance and ordnance stores	221.84	145.40	36.69		403.93
Construction and repair	58.59	22.50	16.96		98.05
Total	298.51	172.49	101.73		572.73
St. Louis:					
Equipment of vessels (C. & R.)	14.76	10.67	10.38		35.81
Equipment of vessels (S. E.)	14.56	5.73	8.11		28.40
Ordnance and ordnance stores	2,302.51	1,630.12	251.42		4,184.05
Construction and repair	66.72	27.53	18.27		112.52
Total	2,398.55	1,674.05	288.18		4,360.78
Supply:					
Equipment of vessels (Nav.)	12.67	8.23			20.90
Equipment of vessels (C. & R.)	157.82	96.54	356.02		610.38
Equipment of vessels (S. E.)	26.80	12.71	25.66		65.17
Steam machinery	91.40	130.75	10.58		232.73
Total	288.69	248.23	392.26		929.18
Sylvia:					
Construction and repair	103.02	69.96	66.45		239.43
Sylph:					
Equipment of vessels (C. & R.)	11.92	3.28	4.29		19.49
Construction and repair	239.08	99.12	29.32		367.52
Steam machinery	770.30	194.36	90.48		1,055.14
Total	1,021.30	296.76	124.09		1,442.15
SUBMARINES.					
A-2:					
Equipment of vessels (S. E.)	49.56	51.32	24.78		125.66
A-6:					
Ordnance and ordnance stores	14.88	22.32			37.20
C-1:					
Equipment of vessels (Nav.)				12.00	12.00

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
C-3:					
Equipment of vessels (S. E.)	$19.36	$5.81	$1.65		$26.82
C-4:					
Equipment of vessels (S. E.)	23.90	6.89			30.79
C-5:					
Steam machinery	26.56	9.76	2.50		38.82
D-1:					
Ordnance and ordnance stores	18.08	8.14			26.22
D-2:					
Construction and repair	29.51	13.79	9.90		53.20
E-1:					
Ordnance and ordnance stores	3.52	1.58			5.10
E-2:					
Ordnance and ordnance stores	36.96	22.18	2.03		61.17
K-4:					
Construction and repair	1.00				1.00
Tacoma:					
Equipment of vessels (Nav.)	2.92	.59			3.51
Equipment of vessels (C. & R.)	37.59	11.57	38.48	$7.50	95.14
Equipment of vessels (S. E.)	413.50	86.63	145.59		645.72
Ordnance and ordnance stores	140.76	48.86	43.91		233.53
Construction and repair	1,249.63	531.10	189.54	4.45	1,974.72
Steam machinery	96.97	36.00	2.28		135.25
Total	1,941.37	714.75	419.80	11.95	3,087.87
Tallahassee:					
Equipment of vessels (Nav.)	5.96	3.64	.98		10.58
Construction and repair	14.96	4.75	4.40		24.11
Steam machinery	322.41	171.03	105.17		598.61
Total	343.33	179.42	110.55		633.30
Tennessee:					
Equipment of vessels (Nav.)	11.13	2.32	14.53		27.98
Equipment of vessels (S. & A.)	7.92	2.83			10.75
Equipment of vessels (C. & R.)	179.59	28.71	60.26		268.56
Equipment of vessels (S. E.)	379.88	94.70	59.73		534.31
Ordnance and ordnance stores	1,206.78	333.72	61.02	90.00	1,691.52
Construction and repair	1,472.49	572.66	732.57		2,777.72
Steam machinery	722.78	294.77	1,015.31		2,032.86
Total	3,980.57	1,329.71	1,943.42	90.00	7,343.70
Terry:					
Equipment of vessels (Nav.)	44.61	23.99	1.56		70.16
Equipment of vessels (C. & R.)	1.25	.25	1.28		2.78
Equipment of vessels (S. E.)	91.50	19.79	38.69		149.98
Ordnance and ordnance stores	277.74	145.32	41.67		464.73
Construction and repair	200.91	86.17	63.94		351.02
Steam machinery	56.10	27.68	6.90		90.68
Total	672.11	303.20	154.04		1,129.35
Tonopah:					
Equipment of vessels (C. & R.)	16.55	4.55	3.03		24.13
Equipment of vessels (S. E.)	7.48	3.52	14.66		25.66
Construction and repair	245.40	111.81	101.29		458.50
Steam machinery	3.76	1.88			5.64
Total	273.19	121.76	118.98		513.93
Trippe:					
Equipment of vessels (C. & R.)	11.66	3.05	13.08		27.79
Construction and repair	25.10	15.06	.60		40.76
Steam machinery	18.12	7.89			26.01
Total	54.88	26.00	13.68		94.56
Truxton:					
Equipment of vessels (Nav.)	59.48	25.93	5.64		91.05
Equipment of vessels (S. E.)	36.44	15.46	2.08		53.98
Ordnance and ordnance stores	76.42	58.72	1.24		136.38
Construction and repair	68.04	34.17	30.11		132.32
Steam machinery	315.12	286.63	58.79		660.54
Total	555.50	420.91	97.86		1,074.27

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Uncas:					
Construction and repair	$52.80	$24.94	$6.26		$84.00
Steam machinery	5.95	2.98			8.93
Total	58.75	27.92	6.26		92.93
Utah:					
Equipment of vessels (Nav.)	18.52	6.73	1.01		26.26
Equipment of vessels (C. & R.)	20.28	4.59	1.60		26.47
Equipment of vessels (S. E.)	127.16	40.39	25.38		192.93
Ordnance and ordnance stores	254.61	102.59	24.84		382.04
Construction and repair	724.41	404.48	192.12		1,321.01
Steam machinery	29.63	12.28	21.45	$14.00	77.36
Total	1,174.61	571.06	266.40	14.00	2,026.07
Vermont:					
Equipment of vessels (C. & R.)	28.41	16.57	32.97		77.95
Equipment of vessels (S. E.)	6.56	2.58	3.88		13.02
Ordnance and ordnance stores	1,009.66	544.97	162.55		1,717.18
Construction and repair	2,719.12	1,580.56	1,057.11		5,356.79
Steam machinery	419.84	276.11	1,095.60		1,791.55
Total	4,183.59	2,420.79	2,352.11		8,956.49
Vestal:					
Equipment of vessels (Nav.)				13.45	13.45
Construction and repair	43.38	13.32	57.50		114.20
Total	43.38	13.32	57.50	13.45	127.65
Vesuvius:					
Ordnance and ordnance stores	2,368.13	1,108.87	366.52		3,843.52
Construction and repair	72.72	62.19	13.71		148.62
Total	2,440.85	1,171.06	380.23		3,992.14
Vicksburg:					
Equipment of vessels (Nav.)	3.24	1.46			4.70
Equipment of vessels (S. & A.)	6.36	2.86	1.50		10.72
Ordnance and ordnance stores	2.24	.56			2.80
Construction and repair	600.29	375.07	164.63		1,139.99
Total	612.13	379.95	166.13		1,158.21
Virginia:					
Equipment of vessels (Nav.)	59.71	31.27	11.21		102.19
Equipment of vessels (C. & R.)	31.54	8.91	4.09		44.54
Equipment of vessels (S. E)	92.59	47.65	22.77		163.01
Ordnance and ordnance stores	1,276.63	654.44	108.36		2,039.43
Construction and repair	1,293.72	608.39	391.72		2,293.83
Steam machinery	209.13	113.44	18.43		341.00
New batteries, ships of the Navy	4,919.60	2,694.76	477.17		8,091.53
Total	7,882.92	4,158.86	1,033.75		13,075.53
Vixen:					
Construction and repair	3.96	2.46	.42		6.84
Steam machinery	8.72	3.05			11.77
Total	12.68	5.51	.42		18.61
Vulcan:					
Equipment of vessels (C. & R.)	152.66	80.00	295.29		527.95
Equipment of vessels (S. E.)				18.75	18.75
Construction and repair	21.20	7.61	3.54		32.35
Steam machinery	5.43	3.07			8.50
Total	179.29	90.68	298.83	18.75	587.55
Wabash:					
Equipment of vessels (C. & R.)	67.36	22.25	21.69		111.30
Construction and repair	196.01	118.76	110.34		425.11
Steam machinery	709.11	371.33	113.57		1,194.01
Total	972.48	512.34	245.60		1,730.42

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Wahneta:					
Construction and repair	$3.04	$0.76	$0.34	....	$4.14
Walke:					
Equipment of vessels (Nav.)	4.48	1.57	1.32	....	7.37
Equipment of vessels (S. E.)	7.06	2.18	.47	....	9.71
Construction and repair	66.24	41.99	17.07	....	125.30
Steam machinery	64.10	30.43	4.04	....	98.57
Total	141.88	76.17	22.90	....	240.95
Warrington:					
Equipment of vessels (C. & R.)	....	....	.51	....	.51
Equipment of vessels (S. E.)	17.32	4.33	.69	....	22.34
Ordnance and ordnance stores	22.52	10.75	....	....	33.27
Total	39.84	15.08	1.20	....	56.12
Wasp:					
Equipment of vessels (S. E.)	6.26	1.88	....	....	8.14
Construction and repair	136.78	72.76	41.83	....	251.37
Steam machinery	7.40	3.70	....	....	11.10
Total	150.44	78.34	41.83	....	270.61
West Virginia:					
Equipment of vessels (C. & R.)	98.46	53.42	67.76	....	219.64
Equipment of vessels (S. E.)	1.59	.79	....	....	2.38
Ordnance and ordnance stores	1,219.96	845.85	95.06	....	2,160.87
Construction and repair	256.00	113.22	57.19	....	426.41
Steam machinery	23.23	10.44	....	....	33.67
Total	1,599.24	1,023.72	220.01	....	2,842.97
Whipple:					
Equipment of vessels (Nav.)	17.76	7.99	5.65	....	31.40
Equipment of vessels (S. E.)	10.09	4.54	.34	....	14.97
Ordnance and ordnance stores	383.70	216.29	71.68	....	671.67
Construction and repair	100.49	61.25	18.63	....	180.37
Steam machinery	16.46	7.41	....	....	23.87
Total	528.50	297.48	96.30	....	922.28
Wheeling:					
Equipment of vassels (C. & R.)	42.37	70.39	....	....	112.76
Equipment of vessels (S. E.)	73.22	18.14	2.77	....	94.13
Ordnance and ordnance stores	10.34	1.86	....	....	12.20
Construction and repair	38.88	8.13	14.04	....	61.05
Steam machinery	146.61	119.00	24.85	....	290.46
Total	311.42	217.52	41.66	....	570.60
Wilkes:					
Equipment of vessels (C. & R.)	72.84	14.57	60.81	....	148.22
Wisconsin:					
Equipment of vessels (C. & R.)	93.30	36.31	34.79	....	164.40
Equipment of vessels (S. E.)	64.85	23.88	21.06	....	109.79
Ordnance and ordnance stores	86.88	23.46	.10	....	110.44
Construction and repair	1,896.16	729.90	544.03	$3.75	3,173.84
Steam machinery	157.17	58.29	84.88	....	300.34
Total	2,298.36	871.84	684.86	3.75	3,858.81
Wompatuck:					
Equipment of vessels (S. E.)	7.47	5.54	2.27	....	15.28
Worden:					
Equipment of vessels (Nav.)	15.00	3.00	....	....	18.00
Equipment of vessels (C. & R.)	4.52	1.36	2.18	....	8.06
Construction and repair	109.55	42.65	24.99	....	177.19
Steam machinery	63.76	28.68	17.82	....	110.26
Total	192.83	75.69	44.99	....	313.51

STATEMENT B—Continued.

TABLE 9.—*Expenditures for repairs to equipage of vessels of the Navy in commission (Title P), showing the appropriations concerned with such expenditures*—Continued.

Ships.	Labor.	Indirect.	Material.	Public bills.	Grand total.
Wyoming:					
Ordnance and ordnance stores				$70.00	$70.00
Yankton:					
Equipment of vessels (C. & R.)	$21.32	$4.26	$11.36		36.94
Equipment of vessels (S. E.)	242.61	81.02	32.35		355.98
Construction and repair	218.88	122.84	56.30		398.02
Steam machinery	222.34	109.13	5.85		337.32
Total	705.15	317.25	105.86		1,128.26
Yorktown:					
Equipment of vessels (Nav.)	2.00	.60			2.60
Equipment of vessels (S. & A.)	80.98	36.45	23.79		141.22
Equipment of vessels (C. & R.)	1.23	1.37			2.60
Construction and repair	346.90	194.72	122.33		663.95
Steam machinery	70.76	26.58	59.66		157.00
Total	501.87	259.72	205.78		967.37

RECAPITULATION.

Equipment of vessels (Nav.)	$950.13	$364.10	$200.46	$199.55	$1,714.24
Equipment of vessels (C. & R.)	5,277.43	2,489.17	4,028.41	294.10	12,089.11
Equipment of vessels (S. & A.)	210.84	90.93	36.19	54.00	391.96
Equipment of vessels (S. E.)	9,483.01	3,413.90	5,454.20	402.15	18,753.26
Ordnance and ordnance stores	30,031.64	14,634.08	4,138.77	1,762.00	50,566.49
Construction and repair	48,001.41	23,331.97	15,150.30	646.56	87,130.24
Steam machinery	16,890.05	7,914.74	8,105.79	33.00	32,943.58
New batteries, ships of Navy	18,596.42	7,935.69	1,801.20		28,333.31
Contingent (S. & A.)	18.40	13.28		15.00	46.68
Medical department	15.22	4.57	.69		20.48
Equipment of vessels (S. E.) 1910				35.00	35.00
Equipment of vessels (Nav.) 1911				14.25	14.25
Equipment of vessels (C. & R.) 1911				200.00	200.00
Equipment of vessels (S. E.) 1911				60.00	60.00
Total, Title P	129,474.55	60,192.43	38,916.01	3,715.61	232,298.60

STATEMENT B—Continued.

TABLE 14.—*Expenditures at each navy yard on account of maintenance of tugs and lighters, care and preservation of ships in ordinary, storekeeping, and miscellaneous charges, including public bills applied directly to objects (Title T).*

[For the appropriations charged with these expenditures see Table 15.]

Navy yards, etc.		Tugs and lighters.	Care and preservation of vessels.	Storekeeping (fleet supply).	Miscellaneous.	Total.
Portsmouth, N. H.	Labor, indirect, and material	$3,462.87	$1,944.63	$4,526.60		$9,934.10
	Bills, current and prior years	1,480.00				1,480.00
Boston, Mass.	Labor, indirect, and material	9,224.28	16,338.43	9,573.86		35,136.57
	Bills, current and prior years	20.00			$130.00	150.00
New York, N. Y.	Labor, indirect, and material	71,904.55	18,374.55	55,568.18	34.94	145,882.22
	Bills, current and prior years	9,082.51			807.90	9,890.41
Philadelphia, Pa.	Labor, indirect, and material	8,647.79	60,624.93	2,816.27		72,088.99
	Bills, current and prior years	2,040.00				2,040.00
Washington, D. C.	Labor, indirect, and material	29,304.88		861.43	2,126.62	32,292.93
Norfolk, Va.	Labor, indirect, and material	35,185.80	36,862.02	6,146.92		78,194.74
	Bills, current and prior years	3,673.25	26.95			3,700.20
Charleston, S. C.	Labor, indirect, and material	2,800.16	568.21	5,321.15		8,689.52
	Bills, current and prior years				267.00	267.00
Mare Island, Cal.	Labor, indirect, and material	55,192.95	23,983.70	15,532.36	4,717.99	99,427.00
	Bills, current and prior years				4,758.56	4,758.56
Puget Sound Wash.	Labor, indirect, and material	20,931.36	55,782.13	4,693.92		81,407.41
Olongapo, P. I.	Labor, indirect, and material	43,806.67	4,880.57	4,055.21		52,742.45
	Bills, current and prior years				1,986.90	1,986.90
Cavite, P. I.	Labor, indirect, and material	39,011.69		16,455.47		55,467.16
Port Royal, S. C.	Bills, current and prior years	2,612.50				2,612.50
Key West, Fla.	Labor, indirect, and material	138.30				138.30
	Bills, current and prior years	143.10			760.65	903.75
Pensacola, Fla.	Bills, current and prior years				790.20	790.20
New Orleans, La.	Bills, current and prior years				29.70	29.70
Guantanamo, Cuba.	Labor, indirect, and material	46.73		5,963.27		6,010.00
Hawaii, T. H.	Bills, current and prior years	20.00				20.00
Guam.	Bills, current and prior years				1,463.70	1,463.70
Torpedo Station, Newport, R. I.	Labor, indirect, and material	4,187.26	10,470.72			14,657.98
	Bills, current and prior years				3,583.52	3,583.52
Naval Training Station, Great Lakes	Labor, indirect, and material				5,636.10	5,636.10
Naval Training Station, California	Labor, indirect, and material	10,958.96				10,958.96
Naval magazines:						
Hingham, Mass.	Labor, indirect, and material			1,743.46		1,743.46
Iona Island, N. Y.	Labor, indirect, and material	4,476.99				4,476.99
Norfolk, Va.	Labor, indirect, and material			1,429.05		1,429.05

STATEMENT B—Continued.

TABLE 14.—*Expenditures at each navy yard on account of maintenance of tugs and lighters, care and preservation of ships in ordinary, storekeeping, and miscellaneous charges, including public bills applied directly to objects (Title T)*—Continued.

Navy yards, etc.		Tugs and lighters.	Care and preservation of vessels.	Storekeeping (fleet supply).	Miscellaneous.	Total.
Naval coal depots:						
Frenchmans Bay, Me.	Bills, current and prior years	$10.00				$10.00
Melville Station	Labor, indirect, and material	97.57				97.57
	Bills, current and prior years	45.00				45.00
Tiburon, Cal.	Bills, current and prior years	485.00				485.00
Naval clothing depot, New York, N. Y.	Labor, indirect, and material			$193.85		193.85
Naval Observatory, Washington, D. C.	Labor, indirect, and material	333.79				333.79
Recapitulation:						
Labor, indirect, and material		339,712.60	$229,829.89	134,881.00	$6,879.55	711,303.04
Bills, current and prior years		19,611.36	26.95		20,214.23	39,852.54
Grand total		359,323.96	229,856.84	134,881.00	27,093.78	751,155.58

TABLE 15.—*Expenditures charged to each appropriation concerned on account of maintenance of tugs and lighters, care and preservation of ships in ordinary, storekeeping, and miscellaneous charges (Title T).*

[Shore stations charged with these expenditures are shown in Table 14.]

Appropriations.			Tugs and lighters.	Care and preservation of vessels.	Storekeeping (fleet supply).	Miscellaneous.	Total.
Pay, miscellaneous	Labor, indirect, and material		$252.57				$252.57
	Bills		2,612.50				2,612.50
Increase of the Navy:							
Construction and machinery	Bills		295.00				295.00
Equipment of vessels:							
Secretary's office	Labor, indirect, and material				$2.80		2.80
Navigation	Labor, indirect, and material		2,084.24				2,084.24
	Bills	1912	6,299.75				6,299.75
		1911	420.25				420.25
Construction and Repair	Labor, indirect, and material	1912	31,558.29	$698.90			32,257.19
		1910	1,115.40				1,115.40
Steam Engineering	Labor, indirect, and material		2,734.11	3,926.02			6,660.13
Supplies and Accounts	Labor, indirect, and material		1,828.30				1,828.30
Coal and transportation:							
Steam Engineering	Labor, indirect, and material		486.89		18,284.63		18,771.52
	Bills		977.00				977.00
Supplies and Accounts	Labor, indirect, and material		117,807.86	573.97	174.14		118,555.97
	Bills		80.00			$217.95	297.95
Bureau of Yards and Docks:							
Maintenance	Labor, indirect, and material		17,924.96	31.10			17,956.06
	Bills	1912	252.50				252.50
		1911	77.50				77.50
Repairs and preservation	Bills		110.00				110.00
Contingent	Bills		95.00				95.00
Bureau of Navigation:							
Transportation	Bills		20.00				20.00
Bureau of Ordnance:							
Ordnance and ordnance stores	Labor, indirect, and material		9,185.80	29,880.72	7,539.12	6,844.61	53,450.25
	Bills	1912	557.50				557.50
		1911	95.00				95.00
Ammunition for ships of the Navy	Labor, indirect, and material				80.53		80.53
Bureau of Construction and Repair:							
Construction and repair	Labor, indirect, and material		99,521.10	126,436.49	9.81		225,967.40
	Bills, current and prior years	1912	4,726.67	26.95		80.00	4,833.62
		1911	823.10				823.10
Bureau of Steam Engineering:							
Steam machinery	Labor, indirect, and material		55,170.61	68,282.69	142.88	34.94	123,631.12
	Bills	1912	1,306.67			50.00	1,356.67
		1911	370.00				370.00

STATEMENT B—Continued.

TABLE 15.—*Expenditures charged to each appropriation concerned on account of maintenance of tugs and lighters, care and preservation of ships in ordinary, storekeeping, and miscellaneous charges (Title T)*—Continued.

Appropriations.			Tugs and lighters.	Care and preservation of vessels.	Storekeeping (fleet supply).	Miscellaneous.	Total.
Bureau of Supplies and Accounts:							
Provisions, Navy	Labor, indirect, and material				$90,017.04		$90,017.04
	Bills	1912	$447.92			$18,006.88	18,454.80
		1911	45.00			1,859.40	1,904.40
Contingent	Labor, indirect, and material	1912	42.47		11,834.53		11,877.00
		1911			*26.80*		*26.80*
Freight	Labor, indirect, and material				6,822.32		6,822.32
Recapitulation:							
Total labor, indirect, and material		1912	338,597.20	$229,829.89	134,907.80	6,879.55	710,214.44
		1911			*26.80*		*26.80*
		1910	1,115.40				1,115.40
Bills		1912	17,780.51	26.95		18,354.83	36,162.29
		1911	1,830.85			1,859.40	3.690.25
Grand total			359,323.96	229,856.84	134,881.00	27,093.78	751,155.58

TABLE 16.—*Expenditures on account of disability, leave, holidays, and incidental expenses at the several yards and stations, and miscellaneous public bills (Title V).*

[For appropriations charged with these expenditures see Table 17.]

Navy yards, etc.		Disability.	Leave.	Holiday.	Incidentals.	Total.
Portsmouth, N. H.	Labor, indirect, and material	$12,103.17	$51,911.33	$48,740.94	*$2,858.76*	$109,896.68
Boston, Mass.	Labor, indirect, and material	17,229.98	92,003.44	93,378.49	40,524.21	243,136.12
New York, N. Y.	Labor, indirect, and material	39,467.63	176,319.34	178,509.43	16,137.47	410,433.87
Philadelphia, Pa.	Labor, indirect, and material	7,675.30	62,521.78	65,772.26	21,385.90	157,355.23
Washington, D. C.	Labor, indirect, and material	7,536.57	179,098.86	167,162.02	204,137.77	557,935.22
Norfolk, Va.	Labor, indirect, and material	15,013.85	85,867.55	89,027.48	11,793.07	201,701.95
Charleston, S. C.	Labor, indirect, and material	2,016.93	16,298.97	16,801.89	214.35	35,332.14
Mare Island, Cal.	Labor, indirect, and material	8,011.04	91,638.88	100,242.07	21,029.30	220,921.29
Puget Sound, Wash.	Labor, indirect, and material	12,822.31	59,556.95	59,747.50	22,764.44	154,891.20
Olongapo, P. I.	Labor, indirect, and material	113.19	18,539.01	19,588.14	*689.26*	37,551.08
Cavite, P. I.	Labor, indirect, and material	18.48	11,407.91	11,208.73	6,994.40	29,629.52
Key West, Fla.	Labor, indirect, and material	106.32	3,600.96	3,774.63	2.76	7,484.67
Pensacola, Fla.	Labor, indirect, and material	35.28	2,384.29	1,952.83		4,372.40
New Orleans, La.	Labor, indirect, and material	93.60	1,096.16	943.12		2,132.88
Guantanamo, Cuba.	Labor, indirect, and material	339.89	1,368.63	4,325.70		6,034.22
Hawaii, Hawaii.	Labor, indirect, and material	70.40	2,053.54	1,573.04		3,696.98
Tutuila, Samoa.	Labor, indirect, and material		145.10	271.84		416.94
Guam.	Labor, indirect, and material		1,693.66	640.14	36.92	2,370.72
Torpedo Station, Newport, R. I.	Labor, indirect, and material	1,303.76	20,790.56	9,897.16		31,991.48
Naval Training Station, R. I.	Labor, indirect, and material	120.64	1,355.48	993.67		2,469.79
Narragansett Bay Station.	Labor, indirect, and material		528.40	317.68		846.08
Naval Training Station, Great Lakes.	Labor, indirect, and material		2,366.99	4,155.88		6,522.87
Naval Training Station, Cal.	Labor, indirect, and material		1,765.45	641.84		2,407.29
Naval Proving Ground, Indian Head, Md.	Labor, indirect, and material	2,555.69	7,950.07	4,701.48		15,207.24
Naval magazines:						
Hingham, Mass.	Labor, indirect, and material	620.74	2,536.62	2,519.75	1,594.95	7,272.06
Iona Island, N. Y.	Labor, indirect, and material	244.14	5,898.11	2,701.44	4,995.47	13,839.16
Dover, N. J.	Labor, indirect, and material		2,661.92			2,661.92
Fort Lafayette, N. Y.	Labor, indirect, and material		597.92	227.36		825.28
Fort Mifflin, Pa.	Labor, indirect, and material	359.91	3,842.15	2,879.46		7,081.52
Norfolk, Va.	Labor, indirect, and material	234.50	2,763.69	2,677.10	210.76	5,886.05
Mare Island, Cal.	Labor, indirect, and material	826.56	4,630.52	4,254.00		9,711.08
Puget Sound, Wash.	Labor, indirert, and material		1,139.50	1,234.20		2,373.70
Philippine Islands.	Labor, indirect, and material		748.86	1,069.28	1,124.83	2,942.97
Naval coal depots:						
Melville Station, R. I.	Labor, indirect, and material		967.14	560.52		1,527.66
New London, Conn.	Labor, indirect, and material		292.76	187.52		480.28
Naval hospitals:						
Las Animas, Colo.	Labor, indirect, and material		85.23	785.14		870.37
Naval War College, Newport, R. I.	Labor, indirect, and material		486.40	306.57		792.97
Naval clothing depot, New York, N. Y.	Labor, indirect, and material	209.40	2,328.44	2,409.70		4,947.54

STATEMENT B—Continued.

TABLE 16.—*Expenditures on account of disability, leave, holidays, and incidental expenses at the several yards and stations, and miscellaneous public bills* (*Title V*)—Continued.

Navy yards, etc.		Disability.	Leave.	Holiday.	Incidentals.	Total.
Naval Academy, Annapolis, Md.	Labor, indirect, and material	$14.40	$2,027.64	$1,205.91	$$314.89	$3,562.84
Naval Observatory, Washington, D. C.	Labor, indirect, and material				233.50	233.50
Ships and naval establishment in general	Bills, current and prior years				2,219,612.97	2,219,612.97
Recapitulation:						
Labor, indirect, and material		129,143.68	923,270.21	907,385.90	349,946.97	2,309,746.76
Bills, current and prior years					2,219,612.97	2,219,612.97
Grand total		129,143.68	923,270.21	907,385.90	2,569,559.94	4,529,359.73

TABLE 17.—*Expenditures charged to each appropriation concerned for disability, leave, holidays, and incidental expenses (Title V).*

[For yards charged with these expenditures, see Table 16.]

Appropriations.			Disability.	Leave.	Holiday.	Incidentals.	Total.
Pay of the Navy	Labor, indirect, and material						
	Bills	1912				$19,412.29	$19,412.29
		1911				21,846.99	21,846.99
		1910				6,052.59	6,052.59
Pay, miscellaneous	Labor, indirect, and material		$11.42	$5,853.68	$4,587.74	2,149.70	12,602.54
	Bills	1912				677,397.85	677,397.85
		1911				43,357.86	43,357.86
		1910				1,455.91	1,455.91
		1909				22.25	22.25
Contingent, Navy	Labor, indirect, and material					1,784.55	1,784.55
	Bills	1912				20,691.81	20,691.81
		1911				9,568.35	9,568.35
Depots for coal	Labor, indirect, and material				339.38		339.38
		1912		416.65	405.51	1,562.63	2,384.79
		1910				4,390.36	4,390.36
Ocean and lake surveys	Labor, indirect, and material	1912				25,805.66	25,805.66
		1911				5,034.69	5,034.69
		1910				990.01	990.01
Increase of the Navy:							
Construction and machinery	Labor, indirect, and material		18,960.37	69,796.36	68,235.47	4,959.23	161,951.43
	Bills					20,672.22	20,672.22
Torpedo boats	Labor, indirect, and material		2.80	4.16			6.96
	Bills					1,084.02	1,084.02
Purchase, steam colliers	Labor, indirect, and material		18.63	118.24	40.67		177.54
Colliers	Labor, indirect, and material		2,174.96	15,111.83	5,599.88	2,543.06	25,429.73
Equipment—							
Construction and repair	Labor, indirect, and material		.93	5.37	1.95		8.25
Steam engineering	Labor, indirect, and material		8.80	45.90	21.43	44.54	120.67
	Bills					74.00	74.00
Equipment of vessels:							
Secretary's office	Labor, indirect, and material			9,374.51	8,310.31	9,054.16	26,738.98
Navigation	Labor, indirect, and material		51.92	343.28	214.50	322.72	932.42
	Bills	1912				387.20	387.20
		1911				129.49	129.49
Construction and Repair	Labor, indirect, and material	1912	782.36	2,964.08	3,400.32	1,418.66	8,565.42
		1911				34.59	34.59
	Bills	1912				170.45	170.45
		1911				124.63	124.63
Steam Engineering	Labor, indirect, and material	1912	6,549.16	30,879.96	34,713.57	5,618.79	77,761.48
		1911				1,235.06	1,235.06
	Bills	1912				2,059.11	2,059.11
		1911				370.01	370.01

STATEMENT B—Continued.

TABLE 17.—*Expenditures charged to each appropriation concerned for disability, leave, holidays, and incidental expenses (Title V)*—Continued.

Appropriations.			Disability.	Leave.	Holiday.	Incidentals.	Total.
Equipment of vessels—Continued.							
Supplies and Accounts	Labor, indirect, and material			$0.04		$284.84	$284.88
	Bills	1912				826.83	826.83
		1911				301.12	301.12
Contingent equipment:							
Navigation	Bills	1912				36.65	36.65
		1911				1,326.41	1,326.41
Construction and Repair	Labor, indirect, and material					2,414.44	2,414.44
Coal and transportation:							
Yards and Docks	Labor, indirect, and material		$0.64	194.59	$313.66		508.89
Steam Engineering	Labor, indirect, and material		809.85	5,240.92	5,063.76	138.16	11,252.69
	Bills					5,721.92	5,721.92
Supplies and Accounts	Labor, indirect, and material			106.12	141.74	48.04	294.90
	Bills	1912				139.38	139.38
		1911				1,131.17	1,131.17
Bureau of Yards and Docks:							
Maintenance	Labor, indirect, and material	1912	11,104.10	81,837.79	82,295.98	38,154.90	213,392.77
		1911	27.94	15.76			43.70
	Bills	1912				1,459.89	1,459.89
		1911				284.61	284.61
		1910				134.06	134.06
Repairs and preservation	Bills					21.39	21.39
Contingent	Bills					24.32	24.32
Marine Corps rifle range	Bills					504.40	504.40
Navy yards and stations (public works)—							
Washington, D. C.	Labor, indirect, and material		1.12	35.68	37.69		74.49
Key West, Fla.	Labor, indirect, and material				655.51		655.51
Mare Island, California	Bills					23.76	23.76
Guantanamo, Cuba	Labor, indirect, and material				311.80		311.80
Plans and specifications, public works	Bills					1,805.13	1,805.13
Bureau of Navigation:							
Transportation	Labor, indirect, and material					11.50	11.50
	Bills	1912				294,581.03	294,581.03
		1911				100,866.44	100,866.44
		1910				1,126.99	1,126.99
Recruiting	Labor, indirect, and material	1912				760.87	760.87
		1911				63.58	63.58
	Bills	1912				104,351.82	104,351.82
		1911				11,210.95	11,210.95
		1910				53.60	53.60

Contingent	Labor, indirect, and material						34.01
	Bills	1912				5,977.19	5,977.19
		1911				2,658.72	2,658.72
Maintenance, naval auxiliaries	Bills	1912				9,181.82	9,181.82
		1911				3,375.58	3,375.58
		1910				57.92	57.92
Gunnery exercises	Labor, indirect, and material	1912		23.28	267.24	113.06	403.58
		1911				1,553.91	1,553.91
	Bills	1912				10,151.80	10,151.80
		1911				4,587.68	4,587.68
		1910				21.13	21.13
Steaming exercises	Bills	1912				1,591.00	1,591.00
		1911				3,812.85	3,812.85
Outfits for first enlistments	Bills	1911				61.39	61.39
Experiments in aviation	Labor, indirect, and material		0.69	16.81	3.58		21.08
Naval Home, Philadelphia, Pa	Labor, indirect, and material					2.49	2.49
	Bills	1912				24.60	24.60
		1911				79.04	79.04
Naval Academy—							
Pay	Bills	1912				2.67	2.67
		1910				491.68	491.68
Repairs	Bills					14.08	14.08
Maintenance	Bills	1912				52.12	52.12
		1911				103.92	103.92
Current and miscellaneous expenses	Bills					2,994.03	2,994.03
Naval War College	Labor, indirect, and material			486.40	306.57		792.97
	Bills	1911				93.56	93.56
		1910				41.60	41.60
Naval training stations—							
Rhode Island	Labor, indirect, and material		58.32	609.60	631.04		1,298.96
	Bills	1911				48.72	48.72
		1910				194.12	194.12
Rhode Island, buildings	Labor, indirect, and material			11.28	16.08		27.36
Great Lakes	Labor, indirect, and material			2,144.21	3,637.95		5,782.16
	Bills	1912				33.60	33.60
		1910				10.24	10.24
Great Lakes, buildings	Labor, indirect, and material				25.80		25.80
California	Labor, indirect, and material			1,640.51	557.28		2,197.79
Medals, officers', new, War with Spain	Bills					42.40	42.40
Campaign badges and ribbons	Bills					273.52	273.52
Bureau of Ordnance:							
Ordnance and ordnance stores	Labor, indirect, and material	1912	11,998.33	130,231.60	106,425.30	79,908.08	328,563.31
		1911		13.76		1,792.99	1,806.75
	Bills	1912				12,294.63	12,294.63
		1911				1,719.62	1,719.62
		1910				224.96	224.96
Repairs	Labor, indirect, and material		32	5.31	221.00		226.63
Contingent	Labor, indirect, and material					15.45	15.45
	Bills	1912				1,074.29	1,074.29
		1911				132.60	132.60
Torpedo station	Labor, indirect, and material		110.43	2,222.85	1,209.20		3,542.48
Torpedo station, buildings	Labor, indirect, and material				12.96		12.96

STATEMENT B—Continued.

TABLE 17.—*Expenditures charged to each appropriation concerned for disability, leave, holidays, and incidental expenses (Title V)*—Continued.

Appropriations.			Disability.	Leave.	Holiday.	Incidentals.	Total.
Bureau of Ordnance—Continued.							
Increase of the Navy—							
Armor and armament	Labor, indirect, and material		$4,774.81	$77,820.60	$66,383.30	$3,652.96	$145,325.75
	Bills					1,406.62	1,406.62
Arming and equipping, Naval Militia	Labor, indirect, and material		.04	1.33	1.20	60.91	63.48
	Bills					950.21	950.21
Naval gun factory	Labor, indirect, and material		18.56	576.93	820.28		1,415.77
New batteries for ships of the Navy	Labor, indirect, and material		789.16	18,998.80	20,600.09	51.63	40,439.68
Fire control, ships of the Navy	Labor, indirect, and material		2.49	102.44	169.69		274.62
Torpedoes and converting torpedo boats	Labor, indirect, and material		7.31	184.33	197.17		388.81
Reserve torpedoes and appliances	Labor, indirect, and material		48.81	1,752.18	1,485.12		3,286.11
Reserve guns for auxiliary cruisers	Labor, indirect, and material		1.79	46.42	33.02		81.23
Reserve guns for ships of the Navy	Labor, indirect, and material		20.15	537.75	624.15		1,182.05
Reserve powder and shell	Labor, indirect, and material		.04	1.47	3.36		4.87
Reserve ammunition	Labor, indirect, and material		24.64	536.85	616.05		1,177.54
Ammunition for ships of the Navy	Labor, indirect, and material		927.12	7,141.33	5,598.24		13,666.69
	Bills					424.29	424.29
Modernizing turrets of ships of the Navy	Labor, indirect, and material		286.75	7,547.49	8,838.69		16,672.93
Experiments	Labor, indirect, and material		11.89	288.17	250.04		550.10
	Bills					2.10	2.10
Naval magazines—							
New York Harbor, N. Y	Labor, indirect, and material		45.76		85.00		130.76
Fort Mifflin, Pa	Labor, indirect, and material				63.24		63.24
Olongapo, P. I	Labor, indirect, and material			2.40	10.08		12.48
Bureau of Construction and Repair:							
Construction and repair	Labor, indirect, and material		43,150.51	257,522.52	274,806.52	121,016.89	696,496.44
		1911		57.16		1,501.93	1,559.09
	Bills	1912				22,012.42	22,012.42
		1911				3,318.26	3,318.26
		1910				172.96	172.96
Construction plants—							
Philadelphia, Pa	Labor, indirect, and material					2,522.24	2,522.24
Norfolk, Va	Labor, indirect, and material					12.59	12.59
Bureau of Steam Engineering:							
Steam machinery	Labor, indirect, and material		22,332.72	143,915.98	154,378.81	44,390.66	365,018.17
		1911		4.92		.50	5.42
	Bills	1912				10,394.20	10,394.20
		1911				1,572.58	1,572.58
		1910				62.32	62.32
Engineering experiment station, Annapolis, Md	Labor, indirect, and material			663.98	408.11		1,072.09

Buildings, Bureau o fSteam Engineering, Annapolis, Md	Labor, indirect, and material			329.07	304.69		633.76
Machinery plant— Philadelphia, Pa	Labor, indirect, and material					941.52	941.52
Bureau of Supplies and Accounts:							
Provisions, Navy	Labor, indirect, and material	1912	4,028.04	44,963.10	42,335.26	*1,264.40*	90,062.00
		1911		20.00			20.00
	Bills	1912				195,168.97	195,168.97
		1911				7,651.17	7,651.17
		1910				276.86	276.86
Contingent	Labor, indirect, and material	1912				18,134.84	18,134.84
		1911				1,572.57	1,572.57
	Bills	1912				1,150.40	1,150.40
		1911				65.00	65.00
Freight	Labor, indirect, and material					36.92	36.92
	Bills	1912				223,238.72	223,238.72
		1911				223,205.75	223,205.75
		1910				17,396.50	17,396.50
Bureau of Medicine and Surgery:							
Medical department	Labor, indirect, and material			62.90	615.30		678.20
	Bills	1912				13,075.35	13,075.35
		1911				382.82	382.82
Contingent	Labor, indirect, and material					165.26	165.26
	Bills	1912				18,740.24	18,740.24
		1911				3,161.34	3,161.34
Naval hospital fund	Labor, indirect, and material			442.56	753.62	4,041.50	5,237.68
	Bills					12,002.08	12,002.08
Bringing home remains	Bills					10,614.02	10,614.02
Navy fines and forfeitures	Bills					9,106.50	9,106.50
Recapitulation:							
Labor, indirect, and material		1912	129,115.74	923,158.61	907,385.90	337,801.48	2,297,461.73
		1911	27.94	111,60		7,753.13	7,894.67
		1910				4,390.36	4,390.36
Bills		1912				1,739,244.00	1,739,244.00
		1911				451,583.27	451,583.27
		1910				28,763.45	28,763.45
		1909				22.25	22.25
Grand total			129,143.68	923,270.21	907,385.90	2,569,559.94	4,529,359.73

STATEMENT B—Continued.

TABLE 19.—*Expenditures made for the purpose of maintaining the shops at industrial navy yards, showing the amounts transferred from power expense and general expense, and the value of the productive labor.*

	Total direct shop expense.	Power transfer.	General expense transfer.	Total shop expense.	Productive labor.
Acetylene gas plant:					
Mare Island, Cal.	$6,317.65	$162.08	$222.36	$6,702.09	$1,942.25
Blacksmiths' shop:					
Puget Sound, Wash	8,676.27	2,392.56	1,950.26	13,019.09	18,319.15
Olongapo, P. I	3,966.17	2,606.25	429.71	7,002.13	4,799.27
Boat shop:					
Portsmouth, N. H	2,785.33	1,647.35	616.02	5,048.70	10,751.75
Boston, Mass	5,593.25	5,205.34	1,034.67	11,833.26	14,400.98
New York, N. Y	11,440.20	3,717.98	2,420.83	17,579.01	32,490.55
Philadelphia, Pa	4,245.50	2,635.01	785.57	7,666.08	8,700.35
Norfolk, Va	7,443.74	2,721.41	2,397.47	12,562.62	25,242.75
Mare Island, Cal	7,023.12	2,281.76	1,960.59	11,265.47	17,238.84
Puget Sound, Wash	2,054.74	596.70	441.02	3,092.46	4,027.17
Cavite, P. I	6,122.04	4,925.01	2,404.72	13,451.77	18,434.36
Boiler shop:					
Portsmouth, N. H	5,529.45	1,984.36	1,472.47	8,986.28	26,857.60
Boston, Mass	16,966.21	8,234.00	5,613.16	30,813.37	84,041.55
New York, N. Y	14,070.92	11,289.13	6,380.67	31,740.72	92,195.17
Philadelphia, Pa	8,702.89	1,984.71	3,798.83	14,486.43	43,268.38
Norfolk, Va	16,596.66	3,026.65	5,205.51	24,828.82	58,409.14
Mare Island, Cal	20,356.70	6,845.29	7,413.12	34,615.11	60,073.74
Puget Sound, Wash	11,763.74	2,661.89	4,605.23	19,030.86	44,056.06
Olongapo, P. I	7,264.96	3,292.52	2,874.30	13,431.78	31,894.79
Breach mechanism shop:					
Washington, D. C	29,683.78	6,382.71	9,347.83	45,414.32	196,967.13
Buffing shop:					
Washington, D. C	2,464.06	2,229.04	1,013.79	5,706.89	21,343.96
Cartridge-case shop:					
Washington, D. C	24,633.10	23,699.15	1,757.31	50,089.56	34,841.00
Chain shop:					
Boston, Mass	13,201.20	3,943.91	1,536.80	18,681.91	22,309.23
Coopers' shop:					
Portsmouth, N. H	2,510.19	826.92	467.47	3,804.58	7,952.32
Copper shop:					
Portsmouth, N. H	2,375.30	995.82	654.25	4,025.37	12,041.00
Boston, Mass	6,075.76	1,231.80	1,555.95	8,863.51	22,587.12
New York, N. Y	7,175.36	2,298.38	2,726.03	12,199.77	39,034.42
Philadelphia, Pa	6,715.20	3,104.80	2,559.56	12,379.56	28,515.80
Washington, D. C	6,268.84	1,051.27	2,203.97	9,524.08	46,355.84
Norfolk, Va	5,529.23	1,392.06	1,529.25	8,450.54	16,900.68
Mare Island, Cal	3,993.75	2,425.49	2,251.61	8,670.85	21,589.96
Puget Sound, Wash	3,246.61	716.31	1,121.15	5,084.07	10,809.67
Olongapo, P. I	2,745.42	104.77	319.46	3,169.65	3,503.06
Crane shop:					
Norfolk, Va	2,577.37	....	524.47	3,101.84	5,888.59
Dry dock:					
Olongapo, P. I	11,620.48	....	3,934.73	15,555.21	49,621.43
Electrical shop:					
Portsmouth, N. H	9,189.22	1,174.88	3,160.25	13,524.35	57,606.89
Boston, Mass	23,888.98	2,494.13	5,932.62	32,315.73	88,146.74
New York, N. Y	25,465.87	4,393.96	12,772.93	42,632.76	183,228.94
Philadelphia, Pa	13,362.00	1,865.22	6,582.23	21,809.45	76,543.12
Norfolk, Va	11,718.97	1,454.85	4,208.23	17,382.05	45,752.54
Charleston, S. C	2,617.52	6.66	1,272.93	3,897.11	12,335.06
Mare Island, Cal	15,912.47	6,043.73	6,835.93	28,792.13	64,119.99
Puget Sound, Wash	13,526.15	3,195.62	4,648.03	21,369.80	44,597.08
Olongapo, P. I	2,319.52	323.86	394.61	3,037.99	4,361.89
Electrical shop (machine):					
New York, N. Y	3,533.02	....	3,317.10	6,850.12	45,707.87
Erecting shop:					
Washington, D. C	34,915.56	14,827.88	11,077.65	60,821.09	237,176.40
Flag shop:					
New York, N. Y	2,917.81	202.80	1,541.85	4,662.46	20,449.45
Mare Island, Cal	1,392.99	468.61	716.80	2,578.40	5,969.86
Forge shop:					
Washington, D. C	43,538.26	32,040.94	3,536.35	79,115.55	73,729.35
Foundry:					
Charleston, S. C	....	....	603.64	603.64	5,575.16
Olongapo, P. I	800.68	174.81	224.89	1,200.38	1,522.65
Galvanizing shop:					
Philadelphia, Pa	3,995.10	....	108.80	4,103.90	1,203.52
Mare Island, Cal	4,268.08	443.86	190.44	4,902.38	1,695.49
Puget Sound, Wash	1,984.97	237.39	164.10	2,386.46	1,505.58

STATEMENT B—Continued.

TABLE 19.—*Expenditures made for the purpose of maintaining the shops at industrial navy yards, showing the amounts transferred from power expense and general expense, and the value of the productive labor*—Continued.

	Total direct shop expense.	Power transfer.	General expense transfer.	Total shop expense.	Productive labor.
Gun carriage shop (east):					
Washington, D. C	$34,805.50	$11,088.06	$9,313.28	$55,206.84	$197,475.44
Gun carriage shop (west):					
Washington, D. C	49,310.94	9,996.21	11,216.75	70,523.90	239,177.69
Gunners' workshop:					
Washington, D. C	4,315.12	1,109.61	1,030.87	6,455.60	21,897.31
Gun shop:					
Washington, D. C	38,585.20	18,180.39	4,953.36	61,718.95	108,971.44
Hauling:					
Washington, D. C	5,149.81	754.08	1,768.22	7,672.11	37,169.51
House carpenter:					
Norfolk, Va	544.00	....	443.40	987.40	3,692.12
Joiner shop:					
Portsmouth, N. H	7,768.19	2,030.43	2,016.48	11,815.10	36,127.09
Boston, Mass	11,288.81	6,496.10	2,343.61	20,128.52	83,541.31
New York, N. Y	15,090.90	8,787.94	4,875.10	28,753.94	69,066.97
Philadelphia, Pa	7,187.18	1,983.95	3,118.43	12,289.56	35,564.53
Norfolk, Va	17,094.36	11,011.17	6,898.49	35,004.02	78,181.27
Charleston, S. C	7,069.05	4,353.27	3,842.15	15,264.47	35,931.50
Mare Island, Cal	14,224.00	4,490.41	6,112.25	24,826.66	57,333.38
Puget Sound, Wash	6,692.96	2,352.60	1,427.82	10,473.37	13,192.11
Olongapo, P. I	5,101.30	1,756.15	885.95	7,743.40	10,588.13
Laborer:.					
Portsmouth, N. H	4,461.46	171.31	1,555.70	6,188.47	29,132.02
Boston, Mass	9,066.58	1,806.55	2,434.30	13,307.43	34,430.30
New York, N. Y	13,986.95	....	8,238.46	22,225.41	110,290.83
Philadelphia, Pa	6,013.47	770.11	6,259.90	13,043.48	67,470.79
Charleston, S. C	2,378.75	568.44	1,768.96	4,716.15	16,897.35
Mare Island, Cal	16,366.88	1,620.95	11,559.63	29,547.46	106,867.20
Puget Sound, Wash	7,128.92	1,621.59	8,346.01	17,096.52	77,428.83
Cavite, P. I	885.83	13.89	349.43	1,249.15	2,172.03
Laborer (hull division):					
Olongapo, P. I	694.01	....	194.25	888.26	1,554.97
Laborer (machinery division):					
Olongapo, P. I	1,766.33	2.10	342.28	2,110.71	1,926.47
Laborer (ship):					
Philadelphia, Pa	5,995.75	770.11	2,528.71	9,294.57	27,840.03
Mare Island, Cal	2,036.88	960.12	2,092.22	5,089.22	19,488.58
Machine shop:					
Boston, Mass	106,861.82	20,441.03	24,924.77	152,227.62	368,635.64
Norfolk, Va	49,789.16	13,804.85	13,570.12	77,164.13	144,272.12
Charleston, S. C	13,463.48	4,435.86	7,349.01	25,248.35	67,874.22
Mare Island, Cal	114,280.59	20,826.51	26,402.17	161,509.27	254,171.68
Puget Sount, Wash	75,176.80	17,369.87	18,986.11	111,532.78	174,071.24
Cavite, P. I	2,998.05	2,767.37	3,629.59	9,395.01	24,087.87
Olongapo, P. I	19,665.26	2,711.67	3,815.43	26,192.36	37,764.40
Machine shop (inside):					
Portsmouth, N, H	22,392.83	2,815.01	2,680.44	27,888.28	49,705.56
New York, N. Y	86,190.45	28,188.99	20,467.33	134,846.77	280,266.61
Machine shop (outside):					
Portsmouth, N. H	8,752.57	171.92	2,683.19	11,607.68	49,202.08
New York, N. Y	17,737.64	....	9,365.68	27,103.32	132,226.58
Philadelphia, Pa	8,103.48	2,233.21	3,772.35	14,109.04	42,065.34
Mare Island, Cal	2,421.17	556.07	1,362.03	4,339.27	9,185.87
Olongapo, P. I	2,369.43	25.20	259.89	2,654.52	4,760.65
Machine shop (engine):					
Norfolk, Va	49,540.25	10,334.92	15,659.72	75,534.89	171,744.79
Machine shop (ordnance):					
Philadelphia, Pa	15,807.59	3,222.78	6,127.79	25,158.16	66,524.30
Machine shop (steam engineering):					
Philadelphia, Pa	40,498.31	10,707.28	11,281.32	62,486.91	128,060.14
Mason:					
New York, N. Y	3,318.03	....	1,603.75	4,921.78	22,569.81
Miscellaneous:					
Washington, D. C	30,339.72	5,464.47	7,869.15	43,673.34	165,512.23
Model basin:					
Washington, D. C	23,142.00	589.53	2,454.87	26,186.40	51,150.40
Paint shop:					
Portsmouth, N. H	2,300.84	100.84	545.45	2,947.13	9,772.61
Boston, Mass	4,351.49	673.59	1,588.46	6,613.54	22,192.98
New York, N. Y	9,310.98	1,775.11	4,868.69	15,954.78	70,636.45
Philadelphia, Pa	7,337.09	713.47	2,988.32	11,038.88	34,336.40
Norfolk, Va	9,582.17	626.12	4,096.65	14,304.94	44,411.48
Charleston, S. C	1,038.31	....	519.00	1,557.31	4,870.91

STATEMENT B—Continued.

TABLE 19.—*Expenditures made for the purpose of maintaining the shops at industrial navy yards, showing the amounts transferred from power expense and general expense, and the value of the productive labor*—Continued.

	Total direct shop expense.	Power transfer.	General expense transfer.	Total shop expense.	Productive labor.
Paint shop—Continued.					
Mare Island, Cal	$7,276.62	$1,969.51	$3,815.00	$13,061.13	$35,230.79
Puget Sound, Wash	7,746.09	1,794.41	4,186.81	13,727.31	37,360.06
Cavite, P. I	1,478.81	497.40	444.89	2,421.18	3,432.94
Pattern shop:					
Portsmouth, N. H	2,403.68	585.33	336.86	3,325.87	6,051.64
Boston, Mass	7,484.21	3,598.48	1,449.72	12,532.41	21,161.06
New York, N. Y	9,755.45	4,393.96	4,868.84	19,018.25	67,632.08
Philadelphia, Pa	3,366.61	1,489.50	1,108.99	5,965.10	12,398.97
Washington, D. C	13,264.82	4,717.78	4,495.63	22,478.23	95,629.04
Norfolk, Va	6,212.61	1,392.05	1,148.24	8,752.90	12,554.78
Mare Island, Cal	9,860.63	3,300.19	2,243.78	15,404.60	19,837.87
Puget Sound, Wash	2,805.66	848.21	699.24	4,353.11	6,492.56
Olongapo, P. I	2,811.23	124.03	360.64	3,295.90	4,383.08
Plumber shop:					
Portsmouth, N. H	4,516.46	614.39	1,213.41	6,344.26	21,621.24
Boston, Mass	18,543.99	3,544.47	6,601.33	28,689.79	96,540.50
New York, N. Y	17,330.98	4,362.76	7,577.83	29,271.57	104,746.40
Philadelphia, Pa	6,619.37	1,422.12	2,619.60	10,661.09	29,742.70
Norfolk, Va	19,068.89	2,244.67	7,676.42	28,989.98	83,800.97
Charleston, S. C	2,242.37	860.22	1,169.68	4,272.27	10,903.44
Cavite, P. I	3,487.32	1,961.85	1,309.38	6,758.55	8,454.53
Olongapo, P. I	4,985.27	247.17	679.16	5,911.60	8,087.25
Pipe shop:					
Mare Island, Cal	15,337.63	3,241.89	7,076.69	25,656.21	72,412.22
Puget Sound, Wash	7,049.87	1,587.93	2,574.86	11,212.66	24,732.94
Polishing and plating:					
Puget Sound, Wash	934.17	206.59	316.49	1,457.25	2,986.41
Power plant:					
Puget Sound, Wash			1,310.26	1,310.26	12,442.04
Olongapo, P. I					20.32
Primer shop:					
Washington, D. C	2,987.56	954.33	807.33	4,749.22	16,553.13
Printing shop:					
Cavite, P. I	42.90	59.27	93.99	196.16	617.60
Olongapo, P. I	92.79	.59	2.43	95.81	45.22
Public works:					
Portsmouth, N. H	4,458.65	287.02	1,613.08	6,358.75	29,756.48
Boston, Mass	5,008.61	88.71	3,035.09	8,132.41	44,154.11
Washington, D. C	4,970.85	256.26	1,720.71	6,947.82	35,124.25
Norfolk, Va	5,787.88		4,366.23	10,154.11	47,154.87
Charleston, S. C	2,555.08	535.16	3,051.37	6,141.61	29,256.83
Mare Island, Cal	3,645.09	249.74	7,645.21	11,540.04	70,428.74
Puget Sound, Wash	4,585.40	1,007.39	4,430.56	10,023.35	41,730.44
Riggers:					
Portsmouth, N. H	335.19	283.98	178.98	798.15	3,140.22
Boston, Mass	2,311.58	291.03	1,271.48	3,874.09	19,681.76
New York, N. Y	10,177.87	608.40	4,171.02	14,957.29	61,944.53
Philadelphia, Pa	1,568.96	105.82	349.44	2,024.22	3,908.68
Norfolk, Va	14,955.48	1,392.07	5,757.82	22,105.37	64,417.24
Puget Sound, Wash	1,483.61	344.45	628.94	2,457.00	5,707.28
Ropewalk:					
Boston, Mass	11,926.91	19,436.91	3,912.21	35,276.03	55,728.11
Sail loft:					
Portsmouth, N. H	918.25	321.84	433.74	1,673.83	7,835.04
Boston, Mass	3,219.74	627.87	1,135.39	4,983.00	15,912.07
New York, N. Y	6,514.43	608.40	2,254.37	9,377.20	31,892.45
Philadelphia, Pa	1,769.45	615.14	870.78	3,255.37	9,878.45
Norfolk, Va	4,923.45	727.34	1,786.59	7,437.38	20,633.48
Mare Island, Cal	4,848.97	503.35	1,399.37	6,751.69	13,846.32
Puget Sound, Wash	2,491.89	579.80	689.16	3,760.85	6,385.77
Cavite, P. I	4,470.30	705.40	2,132.30	7,308.00	16,300.11
Sawmill:					
Mare Island, Cal	1,432.43	2,161.25	198.99	3,792.67	1,774.08
Cavite, P. I	594.01	1,143.96	24.09	1,762.06	316.65
Seamen gunners' shop:					
Washington, D. C	4,656.37	585.02	1,245.52	6,486.91	26,238.78
Secondary mount shop:					
Washington, D. C	34,659.66	7,038.30	8,227.65	49,925.61	174,608.72
Sheet-metal shop:					
New York, N. Y	15,287.09	4,393.96	4,540.54	24,221.59	65,147.91
Philadelphia, Pa	3,639.57	1,759.41	1,464.67	6,863.65	15,926.23
Norfolk, Va	10,215.27	2,182.05	3,541.54	15,938.86	38,913.80
Puget Sound, Wash	8,966.67	2,089.21	2,329.26	13,385.14	21,994.52
Mare Island, Cal	9,373.70	3,580.92	4,666.73	17,621.35	43,742.81

STATEMENT B—Continued.

TABLE 19.—*Expenditures made for the purpose of maintaining the shops at industrial navy yards, showing the amounts transferred from power expense and general expense, and the value of the productive labor*—Continued.

	Total direct shop expense.	Power transfer.	General expense transfer.	Total shop expense.	Productive labor.
Ship fitter:					
Portsmouth, N. H	$23,497.26	$5,098.11	$4,950.65	$33,546.02	$91,919.14
Boston, Mass	59,463.56	14,853.77	11,797.42	86,114.75	173,449.17
New York, N. Y	25,729.83	4,393.96	6,438.62	36,562.41	88,610.01
Philadelphia, Pa	16,303.62	6,208.43	6,833.38	29,345.43	75,751.22
Norfolk, Va	41,128.77	11,449.92	15,382.70	67,961.39	170,519.02
Charleston, S. C	6.694.23	3,391.13	3,312.08	13,397.44	30,483.50
Mare Island, Cal	49,982.63	7,687.78	20,163.79	77,834.20	177,847.52
Puget Sound, Wash	30,629.97	6,857.86	8,957.36	46,445.19	85,558.88
Olongapo, P. I	10,233.47	2,254.32	2,097.24	14,585.03	24,007.26
Ship fitter (inside):					
Portsmouth, N. H	14,859.85	1,846.69	3,053.75	19,760.29	56,688.25
New York, N. Y	88,460.24	43,669.24	35,665.94	167,795.42	476,678.66
Ship smith:					
Boston, Mass	10,411.56	8,566.35	1,281.25	20,259.16	18,161.46
New York, N. Y	19,473.37	17,035.03	4,674.63	41,183.03	63,605.32
Philadelphia. Pa	6,938.82	5,019.36	1,238.34	13,196.52	13,686.22
Norfolk, Va	19,505.93	3,448.89	2,955.47	25,910.29	32,226.08
Mare Island, Cal	19,754.55	8,487.11	5,308.35	33,550.01	48,318.96
Shipwrights:					
Portsmouth, N. H	3,388.39	383.90	1,010.33	4,782.62	19,064.83
Boston, Mass	5,478.86	3,478.21	1,726.62	10,683.69	24,968.50
New York, N. Y	16,999.00	12,167.90	8,261.71	37,428.61	115,387.87
Philadelphia, Pa	6,401.00	1,607.13	2,790.43	10,798.56	31,291.18
Norfolk, Va	10,688.94	1,392.06	3,257.57	15,338.57	37,831.29
Mare Island, Cal	12,948.67	2,822.07	7,427.68	23,198.42	67,090.03
Puget Sound, Wash	9,038.87	2,007.32	4,785.16	15,831.35	45,567.10
Olongapo, P. I	5,094.32	104.77	1,740.87	6,939.96	22,108.44
Sight shop:					
Washington, D. C	26,263.49	3,706.82	5,073.99	35,044.30	109,250.03
Smith:					
Portsmouth, N. H	10,373.19	3,401.75	804.70	14,579.64	15,053.76
Target range;					
Olongapo, P. I	148.12	....	16.57	164.69	117.74
Teams:					
Norfolk, Va	928.64	....	1,170.52	2,099.16	12,756.35
Tool shop:					
Washington, D. C	21,647.30	5,150.29	6,561.10	33,358.69	138,660.24
Tool-dressing shop:					
Philadelphia, Pa	2,137.75	2,054.25	190.28	4,382.28	2,009.50
Transportation:					
Portsmouth, N. H	1,409.20	6.29	452.09	1,867.58	8,584.71
Wharf builder:					
New York, N. Y	2,457.97	....	1,312.62	3,770.59	18,488.46
Yard cleaning:					
Cavite, P. I	1,481.43	141.81	491.22	2,114.46	4,224.70
Olongapo, P. I	1,171.89	....	628.32	1,800.21	7,590.68
Yard construction:					
Olongapo, P. I	7,947.13	....	1,845.26	9,792.39	21,818.51
Yardmaster:					
New York, N. Y	6,634.92	....	2,745.95	9,380.87	37,266.43

RECAPITULATION BY NAVY YARDS.

	Total direct shop expense.	Power transfer.	General expense transfer.	Total shop expense.	Productive labor.
Portsmouth, N. H	$134,225.50	$24,748.14	$29,899.31	$188,872.95	$548,864.22
Boston, Mass	321,143.12	105,012.25	79,174.85	505,330.22	1,160,050.55
New York, N. Y	429,059.28	152,287.90	161,090.49	742,437.67	2,233,563.80
Philadelphia, Pa	176,708.71	50,271.81	67,377.72	294,358.24	754,685.85
Washington, D. C	435,601.94	149,822.14	95,675.33	681,099.41	2,022,832.48
Norfolk, Va	303,831.77	68,601.08	101,576.41	474,009.26	1,115,303.36
Charleston, S. C	38,058.79	14,150.74	22,888.82	75,098.35	214,227.97
Mare Island, Cal	343,055.20	81,128.69	127,064.74	551,248.63	1,174,632.47
Puget Sound, Wash	205,983.35	48,467.70	72,597.83	327,048.88	678,964.83
Cavite, P. I	21,560.77	12,215.96	10,879.61	44,656.34	78,040.79
Olongapo, P. I	90,797.78	13,728.20	21,046.00	125,571.98	241,477.21
Grand total	2,500,026.21	720,434.61	789,271.11	4,009,731.93	10,222,643.53

STATEMENT B—Continued.

TABLE 20.—*Statement of general expense at industrial navy yards.*

Navy yards.	Maintenance, miscellaneous buildings.			Maintenance, elevators.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$535.32	$167.59	$702.91	$427.08	$7.58	$434.66
Boston, Mass	3,576.62	615.25	4,191.87	220.04	39.74	259.78
New York, N. Y	15,171.73	2,270.03	17,441.76	828.80	23.36	852.16
Philadelphia, Pa	2,385.74	464.59	2,850.33	49.40	1.98	51.38
Washington, D. C	3,758.88	584.72	4,343.60	4.68	....	4.68
Norfolk, Va	2,690.10	1,213.45	3,903.55	....	.70	.70
Charleston, S. C	541.12	73.47	614.59	....	....	....
Mare Island, Cal	8,178.10	785.55	8,963.65	18.41	.69	19.10
Puget Sound, Wash	2,302.24	363.38	2,665.62	101.15	9.05	110.20
Cavite, P. I	1,108.39	390.23	1,498.62	....	....	....
Olongapo, P. I	403.81	320.08	723.89	....	....	....
Total	40,652.05	7,248.34	47,900.39	1,649.56	83.10	1,732.66

Navy yards.	Maintenance, furniture for office.			Telegraph, telephone, and fire-alarm systems.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$402.53	$174.47	$577.00	$1,442.76	$131.15	$1,573.91
Boston, Mass	462.69	50.22	512.91	2,460.97	336.61	2,797.58
New York, N. Y	1,251.23	231.37	1,482.60	2,255.63	113.91	2,369.54
Philadelphia, Pa	281.81	176.63	458.44	1,615.94	330.90	1,946.84
Washington, D. C	941.05	217.30	1,158.35	456.49	23.76	480.25
Norfolk, Va	1,564.45	633.93	2,198.38	1,428.13	180.55	1,608.68
Charleston, S. C	34.02	.76	34.78	884.20	114.48	998.68
Mare Island, Cal	215.30	68.73	284.03	3,704.87	491.47	4,196.34
Puget Sound, Wash	394.99	291.81	686.80	987.98	185.62	1,173.60
Cavite, P. I	14.77	16.17	30.94	284.73	310.93	595.66
Olongapo, P. I	155.06	69.55	224.61	1,865.08	456.99	2,322.07
Total	5,717.90	1,930.94	7,648.84	17,386.78	2,676.37	20,063.15

Navy yards.	Maintenance, sewer system.			Janitor service.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$79.92	....	$79.92	$3,317.20	$16.68	$3,333.88
Boston, Mass	547.74	$63.01	610.75	7,558.99	110.47	7,669.46
New York, N. Y	426.53	65.33	491.86	18,458.39	711.27	19,169.66
Philadelphia, Pa	618.61	40.56	659.17	6,638.68	89.90	6,728.58
Washington, D. C	451.13	....	451.13	11,834.77	69.59	11,904.36
Norfolk, Va	348.26	9.26	357.52	8,000.04	778.91	8,778.95
Charleston, S. C	88.26	1.35	89.61	1,437.29	....	1,437.29
Mare Island, Cal	654.68	34.48	689.16	4,474.52	267.54	4,742.06
Puget Sound, Wash	170.27	24.36	194.63	3,451.85	245.50	3,697.35
Cavite, P. I	4.81	4.05	8.86	767.97	82.47	850.44
Olongapo, P. I	775.63	156.81	932.44	565.65	72.91	638.56
Total	4,165.84	399.21	4,565.05	66,505.35	2,445.24	68,950.59

Navy yards.	Maintenance, railroad rolling stock.			Weighing apparatus.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$741.43	$560.98	$1,302.41	$87.03	$15.57	$102.60
Boston, Mass	5,845.25	1,908.53	7,753.78	14.58	12.24	26.82
New York, N. Y	10,299.92	4,725.06	15,024.98	220.71	18.11	238.82
Philadelphia, Pa	14,948.02	2,335.07	17,283.09	32.60	.48	33.08
Washington, D. C	4,137.44	7,227.47	11,364.91	56.92	1.87	58.79
Norfolk, Va	9,409.01	1,368.58	10,777.59	29.42	....	29.42
Charleston, S. C	3,998.06	1,248.36	5,246.42	....	....	....
Mare Island, Cal	16,892.43	5,755.86	22,648.29	61.52	2.07	63.59
Puget Sound, Wash	7,023.68	2,208.68	9,232.36	10.85	2.00	12.85
Cavite, P. I	....	....	....	7.92	....	7.92
Olongapo, P. I	188.71	....	188.71	....	....	....
Total	73,483.95	27,338.59	100,822.54	521.55	52.34	573.89

STATEMENT B—Continued.

TABLE 20.—*Statement of general expense at industrial navy yards*—Continued.

Navy yards.	Maintenance, hoisting apparatus.			Maintenance, floating property.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$947.61	$263.31	$1,210.92	$3,546.28	$85.52	$3,631.80
Boston, Mass	976.44	320.71	1,297.15	7,493.07	1,055.39	8,548.46
New York, N. Y	880.49	968.06	1,848.55	8,836.00	1,627.81	10,463.81
Philadelphia, Pa	1,104.39	258.12	1,362.51	4,107.17	501.14	4,608.31
Washington, D. C	3.60	....	3.60	172.92	13.44	186.36
Norfolk, Va	229.66	7.39	237.05	12,857.53	499.48	13,357.01
Charleston, S. C	278.90	97.97	376.87	365.04	32.80	397.84
Mare Island, Cal	3,206.51	1,466.25	4,672.76	979.71	186.03	1,165.74
Puget Sound, Wash	1,030.74	380.26	1,411.00	13,234.40	2,703.75	15,938.15
Cavite, P. I	....	....	....	3,320.45	887.32	4,207.77
Olongapo, P. I	....	....	....	7,351.20	1,656.16	9,007.36
Total	8,658.34	3,762.07	12,420.41	62,263.77	9,248.84	71,512.61

Navy yards.	Maintenance, live stock.			Maintenance, vehicles.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$1,181.05	$1,913.58	$3,094.63	$139.49	$70.82	$210.31
Boston, Mass	3,331.47	2,954.26	6,285.73	960.76	219.12	1,179.88
New York, N. Y	5,320.24	5,215.90	10,536.14	2,228.71	359.39	2,588.10
Philadelphia, Pa	2,162.03	2,230.19	4,392.22	1,746.31	528.51	2,274.82
Washington, D. C	111.81	51.85	163.66	2,406.77	293.78	2,700.55
Norfolk, Va	1,399.10	3,689.76	5,088.86	1,196.64	263.14	1,459.78
Charleston, S. C	1,355.42	1,059.75	2,415.17	292.76	26.49	319.25
Mare Island, Cal	2,674.82	4,030.66	6,705.48	1,383.49	322.33	1,705.82
Puget Sound, Wash	1,518.33	1,262.26	2,780.59	383.84	131.38	515.22
Cavite, P. I	....	30.42	30.42	4.90	4.05	8.95
Olongapo, P. I	232.68	21.42	254.10	200.40	72.47	272.87
Total	19,286.95	22,460.05	41,747.00	10,944.07	2,291.48	13,235.55

Navy yards.	General office expense (accounting).			General office expense (hull).		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$392.32	$612.67	$1,004.99	$898.29	$930.59	$1,828.88
Boston, Mass	106.10	2,249.41	2,355.51	558.47	1,409.17	1,967.64
New York, N. Y	244.36	3,470.78	3,715.14	1,178.22	2,529.36	3,707.58
Philadelphia, Pa	33.22	1,113.75	1,146.97	1,181.12	2,096.90	3,278.02
Washington, D. C	1,924.13	3,053.46	4,977.59	1,299.58	879.76	2,179.34
Norfolk, Va	24.34	2,387.24	2,411.58	854.55	1,895.57	2,750.12
Charleston, S. C	129.06	507.47	636.53	1,044.76	387.42	1,432.18
Mare Island, Cal	246.27	1,266.30	1,512.57	1,878.49	2,308.09	4,186.58
Puget Sound, Wash	199.58	1,062.47	1,262.05	330.71	1,098.14	1,428.85
Cavite, P. I	61.64	275.50	337.14	11.36	195.15	206.51
Olongapo, P. I	57.36	889.12	946.48	21.76	480.44	502.20
Total	3,418.38	16,888.17	20,306.55	9,257.31	14,210.59	23,467.90

Navy yards.	General office expense (inspection department).			General office expense (public works).		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	....	$29.21	$29.21	....	$284.53	$284.53
Boston, Mass	$23.07	162.86	185.93	$47.10	511.18	558.28
New York, N. Y	43.00	176.16	219.16	190.32	2,002.62	2,192.94
Philadelphia, Pa	2.08	158.06	160.14	5.00	127.51	132.51
Washington, D. C	2.90	47.43	50.33	106.13	210.33	316.46
Norfolk, Va	22.46	168.10	190.56	5.46	736.09	741.55
Charleston, S. C	28.57	2.21	30.78	170.72	175.26	345.98
Mare Island, Cal	17.87	76.90	94.77	2,505.81	463.00	2,968.81
Puget Sound, Wash	39.81	60.71	100.52	142.62	360.25	502.87
Cavite, P. I	....	....	....	67.02	334.60	401.62
Olongapo, P. I	2.08	55.95	58.03	18.20	671.34	689.54
Total	181.84	937.59	1,119.43	3,258.38	5,876.71	9,135.09

STATEMENT B—Continued.

TABLE 20.—*Statement of general expense at industrial navy yards*—Continued.

Navy yards.	Drafting expense, hull.			Drafting expense, machinery.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$23.96	$475.73	$499.69	$27.51	$1,172.69	$1,200.20
Boston, Mass	490.45	923.51	1,413.96	1,524.45	972.97	2,497.42
New York, N. Y	2,327.62	2,738.96	5,066.58	4,692.03	2,639.33	7,331.36
Philadelphia, Pa	1,088.76	2,148.78	3,237.54	648.30	910.26	1,558.56
Washington, D. C	2.00	....	2.00	....	....	....
Norfolk, Va	825.78	1,552.10	2,377.88	566.58	891.47	1,458.05
Charleston, S. C	282.48	136.42	418.90	420.98	59.74	480.72
Mare Island, Cal	1,572.94	838.21	2,411.15	7,588.67	728.97	8,317.64
Puget Sound, Wash	1,743.10	641.37	2,384.47	3,462.83	840.67	4,303.50
Cavite, P. I	3.62	152.54	156.16	3.51	4.28	7.79
Olongapo, P. I	82.66	312.82	395.48	181.44	489.60	671.04
Total	8,443.37	9,920.44	18,363.81	19,116.30	8,709.98	27,826.28

Navy yards.	Drafting expense, public works.			Inspection department.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	....	$393.16	$393.16	....	....	....
Boston, Mass	$241.02	379.63	620.65	$3,532.97	....	$3,532.97
New York, N. Y	194.09	1,335.14	1,529.23	9,077.77	....	9,077.77
Philadelphia, Pa	4.74	105.52	110.26	37.41	$10.13	47.54
Washington, D. C	....	....	....	14.04	3.10	17.14
Norfolk, Va	40.99	405.21	446.20	477.08	32.71	509.79
Charleston, S. C	....	147.26	147.26	15.06	1.12	16.18
Mare Island, Cal	405.25	306.66	711.91	24.20	.58	24.78
Puget Sound, Wash	188.38	753.50	941.88	10.43	59.57	70.00
Cavite, P. I	10.18	25.00	35.18	....	....	....
Olongapo, P. I	3.24	297.76	301.00	....	....	....
Total	1,087.89	4,148.84	5,236.73	13,188.96	107.21	13,296.17

Navy yards.	Testing and inspecting.			Maintenance, testing laboratory.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$189.75	$63.96	$253.71	....	$78.30	$78.3
Boston, Mass	3,698.58	72.35	3,770.93	....	....	....
New York, N. Y	3,021.55	507.45	3,529.00	$2,430.55	868.57	3,299.12
Philadelphia, Pa	1,378.42	127.40	1,505.82	1.01	.16	1.17
Washington, D. C	2,171.28	135.01	2,306.29	1,978.77	1,837.57	3,816.34
Norfolk, Va	8,568.31	660.01	9,228.32	1,167.33	572.74	1,740.07
Charleston, S. C	268.23	9.23	277.46	294.62	14.09	308.71
Mare Island, Cal	1,368.94	307.13	1,676.07	976.92	225.22	1,202.14
Puget Sound, Wash	2,073.90	125.00	2,198.90	9.37	31.24	40.61
Cavite, P. I	35.32	27.25	62.57	3.60	....	3.60
Olongapo, P. I	66.13	101.35	167.48	24.88	....	24.88
Total	22,840.41	2,136.14	24,976.55	6,887.05	3,627.89	10,514.94

Navy yards.	Examination of apprentices.			Handling materials.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$101.61	....	$101.61	$2,284.77	$39.79	$2,324.56
Boston, Mass	31.44	$15.21	46.65	13,023.34	29.17	13,052.51
New York, N. Y	541.99	....	541.99	10,598.20	55.19	10,653.39
Philadelphia, Pa	78.36	11.42	89.78	8,974.13	79.46	9,053.59
Washington, D. C	320.36	10.33	330.69	20,681.79	6,231.78	26,913.57
Norfolk, Va	392.81	7.53	400.34	13,780.65	29.42	13,810.07
Charleston, S. C	217.33	....	217.33	1,315.30	....	1,315.30
Mare Island, Cal	689.35	292.07	981.42	13,930.57	28.68	13,959.25
Puget Sound, Wash	89.84	7.07	96.91	2,904.33	110.75	3,015.08
Cavite, P. I	....	....	....	112.47	5.15	117.62
Olongapo, P. I	....	....	....	425.24	....	425.24
Total	2,463.09	343.63	2,806.72	88,030.79	6,609.39	94,640.18

STATEMENT B—Continued.

TABLE 20.—*Statement of general expense at industrial navy yards*—Continued.

Navy yards.	General office expense, machinery.			General office expense, pay office.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$444.26	$849.48	$1,293.74	$165.12	$145.49	$310.61
Boston, Mass	1,673.56	2,351.36	4,024.92	3.14	204.31	207.45
New York, N. Y	463.95	1,772.81	2,236.76	149.28	....	149.28
Philadelphia, Pa	128.86	1,874.82	2,003.68	38.99	95.07	134.06
Washington, D. C	935.24	1,555.50	2,490.74	166.86	610.09	776.95
Norfolk, Va	319.16	1,053.21	1,372.37	....	59.52	59.52
Charleston, S. C	149.96	137.89	287.85	101.22	145.44	246.66
Mare Island, Cal	3,597.00	2,257.74	5,854.74	1.28	129.16	130.44
Puget Sound, Wash	394.71	1,201.04	1,595.75	20.36	226.19	246.55
Cavite, P. I	93.58	372.08	465.66	27.68	195.19	222.87
Olongapo, P. I	253.85	876.95	1,130.80	40.57	392.15	432.72
Total	8,454.13	14,302.88	22,757.01	714.50	2,202.61	2,917.11

Navy yards.	General office expense, labor board.			Time-clock system.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	....	$11.86	$11.86	....	....	....
Boston, Mass	$5.70	179.30	185.00	....	....	....
New York, N. Y	582.00	....	582.00	$1,853.62	$218.76	$2,072.38
Philadelphia, Pa	1.32	104.08	105.40	....	....	....
Washington, D. C	....	60.28	60.28	817.84	....	817.84
Norfolk, Va	....	56.44	56.44	201.54	5.77	207.31
Charleston, S. C	....	70.42	70.42	....	....	....
Mare Island, Cal	7.84	8.22	16.06	23.12	125.09	148.21
Puget Sound, Wash	12.05	29.04	41.09	47.53	.25	47.78
Total	608.91	519.64	1,128.55	2,943.65	349.87	3,293.52

Navy yards.	General superintendence.			Maintenance, roads, walks, and gutters.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$121.92	....	$121.92	$25.20	....	$25.20
Boston, Mass	....	....	....	388.64	$99.29	487.93
New York, N. Y	....	....	....	751.12	....	751.12
Philadelphia, Pa	1,305.36	....	1,305.36	566.21	114.80	681.01
Washington, D. C	10,813.04	$256.29	11,069.33	340.33	3.24	343.57
Norfolk, Va	13,008.95	194.10	13,203.05	188.44	5.13	193.57
Charleston, S. C	65.45	....	65.45	270.54	....	270.54
Mare Island, Cal	25,882.02	25.65	25,907.67	274.06	.30	274.36
Puget Sound, Wash	16,782.82	504.58	17,287.40	141.32	.41	141.73
Cavite, P. I	....	....	....	309.04	106.87	415.91
Olongapo, P. I	....	....	....	881.42	16.69	898.11
Total	67,979.56	980.62	68,960.18	4,136.32	346.73	4,483.05

Navy yards.	Heat, light, power, and water.			Maintenance of tracks.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$1,327.19	$2,551.58	$3,878.77	$1,317.70	$137.18	$1,454.88
Boston, Mass	1,469.73	1,947.61	3,417.34	1,842.82	170.39	2,013.21
New York, N. Y	9,080.17	15,640.43	24,720.60	3,032.34	186.59	3,218.93
Philadelphia, Pa	392.05	531.34	923.39	1,448.16	527.59	1,975.75
Washington, D. C	1,485.67	2,130.24	3,615.91	3,798.41	2,278.28	6,076.69
Norfolk, Va	275.05	201.25	476.30	4,735.16	130.41	4,865.57
Charleston, S. C	485.74	644.32	1,130.06	3,031.21	228.80	3,260.01
Mare Island, Cal	....	....	....	3,967.48	317.46	4,284.94
Puget Sound, Wash	23.35	264.63	287.98	935.90	80.56	1,016.46
Cavite, P. I	460.43	746.97	1,207.40	....	....	....
Olongapo, P. I	96.80	135.38	232.18	26.36	1.48	27.84
Total	15,096.18	24,793.75	39,889.93	24,135.54	4,058.74	28,194.28

STATEMENT B—Continued.

TABLE 20.—*Statement of general expense at industrial navy yards*—Continued.

Navy yards.	Total general expense.		
	Labor.	Material.	Total.
Portsmouth, N. H	$20,167.30	$11,183.47	$31,350.77
Boston, Mass	62,109.20	19,363.27	81,472.47
New York, N. Y	116,630.56	50,471.75	167,102.31
Philadelphia, Pa	53,004.20	17,095.12	70,099.32
Washington, D. C	71,194.83	27,786.47	98,981.30
Norfolk, Va	84,606.98	19,689.17	104,296.15
Charleston, S. C	17,566.30	5,322.52	22,888.82
Mare Island, Cal	107,402.44	23,117.09	130,519.53
Puget Sound, Wash	60,163.26	15,265.49	75,428.75
Cavite, P. I	6,713.39	4,166.22	10,879.61
Olongapo, P. I	13,920.21	7,547.42	21,467.63
Total	613,478.67	201,007.99	814,486.66

DISTRIBUTION OF GENERAL EXPENSE.

Navy yards.	Transferred to shop expense.			Transferred to appropriations.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$19,227.90	$10,671.41	$29,899.31	$939.40	$512.06	$1,451.46
Boston, Mass	60,339.49	18,835.36	79,174.85	1,769.71	527.91	2,297.62
New York, N. Y	112,433.92	48,656.57	161.090.49	4,196.64	1,815.18	6,011.82
Philadelphia, Pa	50,943.51	16,434.21	67,377.72	2,060.69	660.91	2,721.60
Washington, D. C	68,975.79	26,699.54	95,675.33	2,219.04	1,086.93	3,305.97
Norfolk, Va	82,405.73	19,170.68	101,576.41	2,201.25	518.49	2,719.74
Charleston, S. C	17,566.30	5,322.52	22,888.82	....	....	....
Mare Island, Cal	104,554.91	22,509.83	127,064.74	2,847.53	607.26	3,454.79
Puget Sound, Wash	57,842.46	14,755.37	72,597.83	2,320.80	510.12	2,830.92
Cavite, P. I	6,713.39	4,166.22	10,879.61	....	....	....
Olongapo, P. I	13,654.57	7,391.43	21,046.00	265.64	155.99	421.63
Total	594,657.97	194,613.14	789,271.11	18,820.70	6,394.85	25,215.55

TABLE 21.—*Statement of shop expense at industrial navy yards.*

Navy yards.	Supervision.			Maintenance, shop equipment.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$65,215.28	....	$65,215.28	$1,950.93	$771.53	$2,722.46
Boston, Mass	122,428.81	....	122,428.81	15,387.65	5,322.22	20,709.87
New York, N. Y	174,019.81	....	174,019.81	8,554.17	5,205.42	13,759.59
Philadelphia, Pa	89,948.23	....	89,948.23	1,246.36	1,318.48	2,564.84
Washington, D. C	136,588.48	....	136,588.48	7,420.04	3,573.00	10,993.04
Norfolk, Va	139,827.96	....	139,827.96	8,544.22	1,716.06	10,260.28
Charleston, S. C	15,421.62	....	15,421.62	1,036.26	511.43	1,547.69
Mare Island, Cal	123,189.94	....	123,189.94	7,712.17	2,901.94	10,614.11
Puget Sound, Wash	95,046.40	....	95,046.40	5,768.39	1,090.87	6,859.26
Cavite, P. I	17,351.74	....	17,351.74	176.10	186.64	362.74
Olongapo, P. I	57,892.08	....	57,892.08	2,506.77	1,276.23	3,783.00
Total	1,036,930.35	....	1,036,930.35	60,303.06	23,873.82	84,176.88

STATEMENT B—Continued.

TABLE 21.—*Statement of shop expense at industrial navy yards*—Continued.

Navy yards.	Maintenance, shop furniture and fixtures.			Maintenance, loose and hand tools.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$727.76	$246.78	$974.54	$19,188.37	$7,740.17	$26,928.54
Boston, Mass	974.53	853.75	1,828.28	49,631.54	17,650.64	67,282.18
New York, N. Y	2,423.61	907.75	3,331.36	53,364.18	35,641.55	89,005.73
Philadelphia, Pa	689.50	371.80	1,061.30	24,954.00	5,764.97	30,718.97
Washington, D. C	962.17	323.40	1,285.57	37,893.76	12,302.70	50,196.46
Norfolk, Va	1,467.39	717.21	2,184.60	39,293.39	13,240.72	52,534.11
Charleston, S. C	332.18	399.88	732.06	3,347.77	3,704.54	7,052.31
Mare Island, Cal	950.94	375.47	1,326.41	54,641.80	24,450.52	79,092.32
Puget Sound, Wash	1,730.07	650.27	2,380.34	26,173.14	6,218.11	32,391.25
Cavite, P. I	8.81	14.64	23.45	1,522.38	521.58	2,043.96
Olongapo, P. I	242.01	88.09	330.10	9,801.38	5,193.82	14,995.20
Total	10,508.97	4,949.04	15,458.01	319,811.71	132,429.32	452,241.03

Navy yards.	Maintenance, machine tools.			Maintenance, buildings.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$5,575.50	$762.11	$6,337.61	$2,086.29	$352.65	$2,438.94
Boston, Mass	17,635.02	2,840.50	20,475.52	6,194.78	1,425.77	7,620.55
New York, N. Y	34,325.12	3,959.42	38,284.54	6,872.69	1,445.62	8,318.31
Philadelphia, Pa	9,612.09	1,031.67	10,643.76	2,976.44	311.01	3,287.45
Washington, D. C	25,107.95	3,410.39	28,518.34	8,714.86	3,703.00	12,417.86
Norfolk, Va	19,979.90	3,441.53	23,421.43	3,232.26	1,275.28	4,507.54
Charleston, S. C	2,674.44	1,022.32	3,696.76	597.53	99.93	697.46
Mare Island, Cal	20,864.33	3,247.54	24,111.87	3,249.70	801.74	4,051.44
Puget Sound, Wash	11,238.16	2,169.70	13,407.86	1,204.26	401.58	1,605.84
Cavite, P. I	270.86	39.55	310.41	45.87	1.43	47.30
Olongapo, P. I	2,739.48	1,074.00	3,813.48	1,368.72	307.66	1,676.38
Total	150,022.85	22,998.73	173,021.58	36,543.40	10,125.67	46,669.07

Navy yards.	Maintenance, elevators.			Miscellaneous shop expense.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$123.34	$40.70	$164.04	$23,516.41	$2,400.76	$25,917.17
Boston, Mass	819.40	26.19	845.59	59,575.65	10,014.10	69,589.75
New York, N. Y	2,255.75	8.47	2,264.22	71,528.37	11,428.49	82,956.86
Philadelphia, Pa	74.60	38.13	112.73	29,094.63	6,320.25	35,414.88
Washington, D. C	46.21	35.58	81.79	141,160.98	19,982.90	161,143.88
Norfolk, Va	56.21	3.20	59.41	44,649.36	7,589.01	52,238.37
Charleston, S. C	130.43	64.23	194.66	6,684.74	1,052.28	7,737.02
Mare Island, Cal	180.28	14.19	194.47	78,418.24	15,023.52	93,441.76
Puget Sound, Wash	119.40	51.82	171.22	41,194.72	7,733.41	48,928.13
Cavite, P. I				768.15	520.27	1,288.42
Olongapo, P. I				2,474.96	3,229.42	5,704.38
Total	3,805.62	282.51	4,088.13	499,066.21	85,294.41	584,360.62

Navy yard.	Power, independent plants.			Fuel.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$13.44		$13.44	$62.55	$3,450.93	$3,513.48
Boston, Mass				777.11	9,585.46	10,362.57
New York, N. Y	2,094.80	$19.09	2,113.89	308.25	14,696.72	15,004.97
Philadelphia, Pa				828.31	2,128.24	2,956.55
Washington, D. C	10,963.20	722.08	11,685.28	1,998.73	20,692.51	22,691.24
Norfolk, Va	4,796.70	215.33	5,012.03	615.04	13,171.00	13,786.04
Charleston, S. C					979.21	979.21
Mare Island, Cal	15.64	22.56	38.20	178.66	6,816.02	6,994.68
Puget Sound, Wash				173.76	5,019.29	5,193.05
Cavite, P. I	87.45	5.40	92.85		39.90	39.90
Olongapo, P. I	45.90	108.32	154.22	415.54	2,033.40	2,448.94
Total	18,017.13	1,092.78	19,109.91	5,357.95	78,612.68	83,970.63

STATEMENT B—Continued.

TABLE 21.—*Statement of shop expense at industrial navy yards*—Continued.

Navy yard.	Total direct shop expense.			Power transfer.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$118,459.87	$15,765.63	$134,225.50	$8,453.94	$16,294.20	$24,748.14
Boston, Mass	273,424.49	47,718.63	321,143.12	45,464.57	59,547.68	105,012.25
New York, N. Y	355,746.75	73,312.53	429,059.28	56,080.27	96,207.63	152,287.90
Philadelphia, Pa	159,424.16	17,284.55	176,708.71	23,854.14	26,417.67	50,271.81
Washington, D. C	370,856.38	64,745.56	435,601.94	65,299.12	84,523.02	149,822.14
Norfolk, Va	262,462.43	41,369.34	303,831.77	39,521.23	29,079.85	68,601.08
Charleston, S. C	30,224.97	7,833.82	38,058.79	5,891.39	8,259.35	14,150.74
Mare Island, Cal	289,401.70	53,653.50	343,055.20	24,595.75	56,532.94	81,128.69
Puget Sound, Wash	182,648.30	23,335.05	205,983.35	20,533.48	27,934.22	48,467.70
Cavite, P. I	20,231.36	1,329.41	21,560.77	4,844.00	7,371.96	12,215.96
Olongapo, P. I	77,486.84	13,310.94	90,797.78	5,889.44	7,838.76	13,728.20
Total	2,140,367.25	359,658.96	2,500,026.21	300,427.33	420,007.28	720,434.61

Navy yard.	General expense transfer.			Total shop expense.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$19,227.90	$10,671.41	$29,899.31	$146,141.71	$42,731.24	$188,872.95
Boston, Mass	60,339.49	18,835.36	79,174.85	379,228.55	126,101.67	505,330.22
New York, N. Y	112,433.92	48,656.57	161,090.49	524,260.94	218,176.73	742,437.67
Philadelphia, Pa	50,943.51	16,434.21	67,377.72	234,221.81	60,136.43	294,358.24
Washington, D. C	68,975.79	26,699.54	95,675.33	505,131.29	175,968.12	681,099.41
Norfolk, Va	82,405.73	19,170.68	101,576.41	384,389.39	89,619.87	474,009.26
Charleston, S. C	17,566.30	5,322.52	22,888.82	53,682.66	21,415.69	75,098.35
Mare Island, Cal	104,554.91	22,509.83	127,064.74	418,552.36	132,696.27	551,248.63
Puget Sound, Wash	57,842.46	14,755.37	72,597.83	261,024.24	66,024.64	327,048.88
Cavite, P. I	6,713.39	4,166.22	10,879.61	31,788.75	12,867.59	44,656.34
Olongapo, P. I	13,654.57	7,391.43	21,046.00	97,030.85	28,541.13	125,571.98
Total	594,657.97	194,613.14	789,271.11	3,035,452.55	974,279.38	4,009,731.93

TABLE 22.—*Statement of power expense at industrial navy yards.*

Navy yards.	Maintenance, power-plant buildings.			Maintenance, substation buildings.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$50.20	$24.20	$74.40			
Boston, Mass	2,905.99	868.95	3,774.94	$64.17	$3.35	$67.52
New York, N. Y	2,985.16	365.57	3,350.73	534.60	15.29	549.89
Philadelphia, Pa	532.12	332.31	864.43	208.68	7.08	215.76
Washington, D. C	1,180.48	464.65	1,645.13			
Norfolk, Va	203.36	35.34	238.70	21.32	9.78	31.10
Charleston, S. C		5.53	5.53			
Mare Island, Cal	204.38	164.73	369.11	96.57	28.79	125.36
Puget Sound, Wash	806.88	340.28	1,147.16	27.45	4.43	31.88
Olongapo, P. I	53.28	76.61	129.89			
Total	8,921.85	2,678.17	11,600.02	952.79	68.72	1,021.51

Navy yards.	Power-plant boilers, flues, and stacks.			Power-plant piping.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$329.40	$586.72	$916.12	$578.86	$86.80	$665.66
Boston, Mass	8,131.99	3,220.15	11,352.14	4,154.60	1,140.63	5,295.23
New York, N. Y	7,648.18	3,315.55	10,963.73	885.60	301.63	1,187.23
Philadelphia, Pa	3,796.81	834.35	4,631.16	1,460.73	628.97	2,089.70
Washington, D. C	7,545.15	2,473.97	10,019.12	1,927.62	706.37	2,633.99
Norfolk, Va	1,727.41	369.55	2,096.96	692.23	133.87	826.10
Charleston, S. C	2,947.58	1,322.75	4,270.33	677.18	24.72	701.90
Mare Island, Cal	996.16	511.53	1,507.69	109.97	67.05	177.02
Puget Sound, Wash	2,725.90	359.53	3,085.43	1,253.95	164.08	1,418.03
Cavite, P. I	533.20	110.07	643.27	425.57	115.77	541.34
Olongapo, P. I	596.04	132.85	728.89	1,036.74	474.00	1,510.74
Total	36,977.82	13,237.02	50,214.84	13,203.05	3,843.89	17,046.94

STATEMENT B—Continued.

TABLE 22.—*Statement of power expense at industrial navy yards*—Continued.

Navy yards.	Power-plant machinery.			Distributing system (heat).		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H.	$467.31	$183.25	$650.56	$464.08	$49.94	$514.02
Boston, Mass.	7,124.25	1,666.92	8,791.17	1,137.36	581.34	1,718.70
New York, N. Y.	5,229.22	1,020.10	6,249.32	1,324.40	80.20	1,404.60
Philadelphia, Pa.	1,603.08	269.50	1,872.58	1,149.14	126.13	1,275.27
Washington, D. C.	1,867.92	359.97	2,227.89	3,096.61	1,587.71	4,684.32
Norfolk, Va.	2,107.73	535.51	2,643.24	831.41	52.53	883.94
Charleston, S. C.	408.14	415.47	823.61	9.38	.22	9.60
Mare Island, Cal.	1,328.15	305.06	1,633.21	345.66	48.34	394.00
Puget Sound, Wash.	2,854.80	495.47	3,350.27	2,086.22	473.60	2,559.82
Cavite, P. I.	953.23	404.69	1,357.92	9.14	....	9.14
Olongapo, P. I.	1,213.25	485.42	1,698.67	319.59	175.34	494.93
Total	25,157.08	6,141.36	31,298.44	10,772.99	3,175.35	13,948.34

Navy yards.	Distributing system (electrical).			Distributing system (pneumatic).		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H.	$6,472.98	$3,105.88	$9,578.86	$647.49	$96.18	$743.67
Boston, Mass.	10,194.38	3,184.27	13,378.65	1,230.89	160.66	1,391.55
New York, N. Y.	13,564.31	3,128.91	16,693.22	2,199.73	207.31	2,407.04
Philadelphia, Pa.	4,542.51	1,043.31	5,585.82	3,339.32	1,223.52	4,562.84
Washington, D. C.	3,090.03	892.34	3,982.37	286.11	95.40	381.51
Norfolk, Va.	9,247.37	4,896.47	14,143.84	2,385.74	516.90	2,902.64
Charleston, S. C.	823.23	451.43	1,274.66	303.40	10.86	314.26
Mare Island, Cal.	7,554.69	46,437.76	53,992.45	3,265.20	374.25	3,639.45
Puget Sound, Wash.	3,079.75	1,053.56	4,133.31	2,555.78	356.77	2,912.55
Cavite, P. I.	895.29	451.39	1,346.68	1.72	.67	2.39
Olongapo, P. I.	2,075.21	1,131.12	3,206.33	71.55	56.29	127.84
Total	61,539.75	65,776.44	127,316.19	16,286.93	3,098.81	19,385.74

Navy yards.	Distributing system (hydraulic).			Water system.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H.	....	....	....	$773.07	$21,621.60	$22,394.67
Boston, Mass.	....	....	....	1,584.71	29,201.07	30,785.78
New York, N. Y.	$820.61	....	$820.61	6,280.46	36,412.20	42,692.66
Philadelphia, Pa.	....	....	....	1,051.77	2,107.64	3,159.41
Washington, D. C.	....	....	....	111.28	17.40	128.68
Norfolk, Va.	19.40	$1.68	21.08	2,749.70	1,543.51	4,293.21
Charleston, S. C.	....	....	....	265.51	6,631.34	6,896.85
Mare Island, Cal.	121.66	9.78	131.44	882.64	44,875.12	45,757.76
Puget Sound, Wash.	....	....	....	1,232.87	7,517.93	8,750.80
Cavite, P. I.	....	....	....	1,573.82	3,572.64	5,146.46
Total	961.67	11.46	973.13	16,505.83	153,500.45	170,006.28

Navy yards.	Substation motors and accessories.			Maintenance, tools, furniture, and fixtures.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H.	....	....	....	$64.48	$71.19	$135.67
Boston, Mass.	$565.25	$262.69	$827.94	455.83	748.88	1,204.71
New York, N. Y.	1,841.34	431.31	2,272.65	148.59	181.03	329.62
Philadelphia, Pa.	....	....	....	257.10	56.82	313.92
Washington, D. C.	464.85	....	464.85	4,574.58	3,456.14	8,030.72
Norfolk, Va.	245.54	97.51	343.05	181.63	38.52	220.15
Charleston, S. C.	861.34	39.76	901.10	1.52	....	1.52
Mare Island, Cal.	6.58	....	6.58	46.13	50.53	96.66
Puget Sound, Wash.	55.25	4.00	59.25	278.47	106.98	385.45
Cavite, P. I.	63.04	7.62	70.66	1.08	11.97	13.05
Olongapo, P. I.	77.42	6.98	84.40	46.19	124.50	170.69
Total	4,180.61	849.87	5,030.48	6,055.60	4,846.56	10,902.16

STATEMENT B—Continued.

TABLE 22.—*Statement of power expense at industrial navy yards*—Continued.

Navy yards.	Attendance, light and power plants.			Fuel.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$17,241.28		$17,241.28	$1,793.18	$34,298.34	$36,091.52
Boston, Mass	27,441.02	$0.53	27,441.55	7,667.76	61,640.40	69,308.16
New York, N. Y	34,608.58	6.00	34,614.58	8,411.37	104,980.60	113,391.97
Philadelphia, Pa	18,491.27		18,491.27	4,430.48	42,493.43	46,923.91
Washington, D. C	43,539.82	41.19	43,581.01	4,651.36	88,402.67	93,054.03
Norfolk, Va	23,016.48		23,016.48	7,814.29	33,990.70	41,804.99
Charleston, S. C	12,387.28	15.31	12,402.59		19,109.84	19,109.84
Mare Island, Cal	13,608.71	.44	13,609.15	7.04	33,737.86	33,744.90
Puget Sound, Wash	13,112.53	1.19	13,113.72	190.16	39,202.28	39,392.44
Cavite, P. I	7,430.72		7,430.72	547.48	14,175.44	14,722.92
Olongapo, P. I	9,057.29		9,057.29		19,129.94	19,129.94
Total	219,934.98	64.66	219,999.64	35,513.12	491,161.50	526,674.62

Navy yards.	Power-plant supplies.			Oil, grease, and waste.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H		$148.39	$148.39		$1,272.21	$1,272.21
Boston, Mass	$3.28	686.75	690.03		1,139.87	1,139.87
New York, N. Y	44.08	1,259.18	1,303.26	$3.52	2,585.14	2,588.66
Philadelphia, Pa	7.50	834.02	841.52	3.29	755.56	758.85
Washington, D. C	57.03	1,211.91	1,268.94	60.47	2,098.34	2,158.81
Norfolk, Va		132.69	132.69		630.59	630.59
Charleston, S. C		2.39	2.39		820.46	820.46
Mare Island, Cal	1.65	115.85	117.50		663.39	663.39
Puget Sound, Wash	95.92	1,084.79	1,180.71	69.50	954.63	1,024.13
Cavite, P. I	.24	752.89	753.13		787.32	787.32
Olongapo, P. I	2.92	144.47	147.39	29.04	721.48	750.52
Total	212.62	6,373.33	6,585.95	165.82	12,428.99	12,594.81

Navy yards.	Supervision.			Total power expense.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$3,073.31		$3,073.31	$31,955.64	$61,544.70	$93,500.34
Boston, Mass	6,879.24		6,879.24	79,540.72	104.506.46	184.047.18
New York, N. Y	3,111.83		3,111.83	89,641.58	154.290.02	243,931.60
Philadelphia, Pa	4,072.50		4,072.50	44,946.30	50,712.64	95,658.94
Washington, D. C	5,320.90		5,320.90	77,774.21	101,808.06	179,582.27
Norfolk, Va	7,128.13		7,128.13	58,371.74	42,985.15	101.356.89
Charleston, S. C	2,645.98		2,645.98	21,330.54	28,850.08	50,180.62
Mare Island, Cal	4,241.61		4,241.61	32,816.80	127,390.48	160,207.28
Puget Sound, Wash	6,129.21		6,129.21	36,554.64	52,119.52	88,674.16
Cavite, P. I	939.18		939.18	13,373.71	20,390.47	33,764.18
Olongapo, P. I	2,326.86		2,326.86	16,905.38	22,659.00	39,564.38
Total	45,868.75		45,868.75	503,211.26	767,256.58	1,270,467.84

POWER DISTRIBUTION.

Navy yards.	Transferred to shop expense.			Transferred to general expense.		
	Labor.	Material.	Total.	Labor.	Material.	Total.
Portsmouth, N. H	$8,453.94	$16,294.20	$24,748.14	$1,327.19	$2,551.58	$3,878.77
Boston, Mass	45,464.57	59,547.68	105,012.25	1,469.73	1,947.61	3,417.34
New York, N. Y	56,080.27	96,207.63	152,287.90	9,080.17	15,640.43	24,720.60
Philadelphia, Pa	23,854.14	26,417.67	50,271.81	392.05	531.34	923.39
Washington, D. C	65,299.12	84,523.02	149,822.14	1,485.67	2,130.24	3,615.91
Norfolk, Va	39,521.23	29,079.85	68,601.08	275.05	201.25	476.30
Charleston, S. C	5,891.39	8,259.35	14,150.74	485.74	644.32	1,130.06
Mare Island, Cal	24,595.75	56,532.94	81,128.69			
Puget Sound, Wash	20,533.48	27,934.22	48,467.70	23.35	264.63	287.98
Cavite, P. I	4,844.00	7,371.96	12,215.96	460.43	746.97	1,207.40
Olongapo, P. I	5,889.44	7,838.76	13,728.20	96.80	135.38	232.18
Total	300,427.33	420,007.28	720,434.61	15,096.18	24,793.75	39,889.93

STATEMENT B—Continued.

TABLE 22.—*Statement of power expense at industrial navy yards*—Continued.

POWER DISTRIBUTION—Continued.

Navy yards.	Transferred to appropriations.		
	Labor.	Material.	Total.
Portsmouth, N. H	$22,174.51	$42,698.92	$64,873.43
Boston, Mass	32,606.42	43,011.17	75,617.59
New York, N. Y	24,481.14	42,441.96	66,923.10
Philadelphia, Pa	20,700.11	23,763.63	44,463.74
Washington, D. C	10,989.42	15,154.80	26,144.22
Norfolk, Va	18,575.46	13,704.05	32,279.51
Charleston, S. C	14,953.41	19,946.41	34,899.82
Mare Island, Cal	8,221.05	70,857.54	79,078.59
Puget Sound, Wash	15,997.81	23,920.67	39,918.48
Cavite, P. I	8,069.28	12,271.54	20,340.82
Olongapo, P. I	10,919.14	14,684.86	25,604.00
Total	187,687.75	322,455.55	510,143.30

STATEMENT C.

TABLE 1.—*Showing issues from Title X to Titles B and Y during fiscal year 1912, by stations.*

Stations.	Issues charged on transfer statement (70).	Issues of stores which were held in title X under appropriations.	Issued in 1912. Charged in 1911.	Total.
Portsmouth	$823,324.41	$57,620.66		$880,945.07
Boston	923,427.78	1,447,389.12		2,370,816.90
Hingham	832,910.92	239,203.18		1,072,114.10
Torpedo Station, Newport	35,683.49	1,140,250.93		1,175,934.42
Training Station, Newport	78,652.02	5,926.42		84,578.44
New York	1,885,125.50	1,485,659.62		3,370,785.12
Iona Island	1,074,358.90	1,832,465.44		2,906,824.34
Philadelphia	1,123,507.47	1,042,780.01		2,166,287.48
Fort Mifflin	107.44	831,794.07		831,901.51
Annapolis	78,299.35	665.82		78,965.17
Washington	24.069.96	1,086,821.29		1,110,891.25
Naval Observatory	23,473.36			23,473.36
Norfolk	2,015,620.37	177,009.66		2,192,630.03
St. Juliens Creek	774,536.66	1,090,574.33		1,865,110.99
Charleston	157,720.97	75,306.91		233,027.88
Key West	25,524.17	96.63		25,620.80
Pensacola	7,178.71	13,774.20		20,952.91
New Orleans	879.85			879.85
Training Station, California	25,388.17	34,351.44		59,739.61
Mare Island (yard)	925,666.63	196,280.00		1,121,946.63
Mare Island (magazine)	580,102.83	178,099.74		758,202.57
Puget Sound	1,632,194.62	253,971.13		1,886,165.75
Guantanamo	117,911.64	10,579.64		128,491.28
San Juan	323.28			323.28
Cavite	488,391.29	12,687.37		501,078.66
Olongapo	257,991.44	57,543.41		315,534.85
Guam	9,437.79	70.62		9,508.41
Hawaii	199,374.44			199,374.44
Tutuila	14,153.59	1,558.45		15,712.04
Bradford	102,893.42			102,893.42
New London	68.00	87.04		155.04
San Diego	61,316.67			61,316.67
Yokohama	6,583.50			6,583.50
Afloat	2,640,177.69	11,883.55	$311.79	2,652,373.03
Total	16,946,376.33	11,284,450.68	311.79	28,231,138.80

STATEMENT C—Continued.

TABLE 2.—*Showing issues from Title X to Titles B and Y during fiscal year 1912, by appropriations.*

Appropriations.	Issues charged on transfer statement (70).	Issues of stores which were held in title X under appropriations.	Issued in 1912. Charged in 1911.	Total.
Equipment of vessels, 1910	$3,475.40	$651.62	....	$4,127.02
Equipment of vessels, 1911 (Nav.)	121.00	....	$2.00	123.00
Equipment of vessels, 1911 (C. & R.)	14,227.41	....	219.17	14,446.58
Equipment of vessels, 1911 (S. E.)	14,417.48	....	4.07	14,421.55
Equipment of vessels, 1911 (S. & A.)	1,192.03	....	....	1,192.03
Equipment of vessels, 1912 (Nav.)	146,185.74	....	....	146,185.74
Equipment of vessels, 1912 (C. & R.)	1,145,536.66	6,789.50	....	1,152,326.16
Equipment of vessels, 1912 (S. E.)	526,025.62	....	....	526,025.62
Equipment of vessels, 1912 (S. & A.)	222,285.73	....	....	222,285.73
Coal and transportation, 1911 (S. & A.)	6,904.29	....	....	6,904.29
Coal and transportation, 1912 (S. E.)	47.52	....	....	47.52
Coal and transportation, 1912 (S. & A.)	3,364,416.69	87.04	....	3,364,503.73
Increase Navy, Equipment (Nav.)	28,061.54	....	....	28,061.54
Increase Navy, Equipment (C. & R.)	154,164.65	....	....	154,164.65
Increase Navy, Equipment (S. E.)	30,360.05	....	....	30,360.05
Increase Navy, Equipment (S. & A.)	22,115.81	....	....	22,115.81
Ocean and lake surveys, 1912	17,616.45	....	....	17,616.45
Recruiting, Navigation, 1912	1,357.83	....	....	1,357.83
Gunnery exercises, 1912	315.32	....	....	315.32
Maintenance, Naval Auxiliaries, 1912	97.75	....	....	97.75
Ordnance and ordnance stores, 1911	7,953.62	....	4.16	7,957.78
Ordnance and ordnance stores, 1912	6,424,873.37	7,951,216.94	....	14,376,090.31
Ammunition, ships, Navy	132,127.87	286,628.07	....	418,755.94
Increase Navy, A. & A	721,190.70	2,176,598.88	....	2,897,789.58
New batteries, ships, Navy	50,755.60	80,962.68	....	131,718.28
Modernizing turrets, ships, Navy	31,389.94	15,937.26	....	47,327.20
Modernizing batteries, Massachusetts and Oregon	5,460.00	....	....	5,460.00
Mines and appliances	....	100.00	....	100.00
Fire control, ships, Navy	35,118.22	33,847.95	....	68,966.17
Reserve torpedoes and appliances	150,722.16	674,531.69	....	825,253.85
Reserve ammunition	18,324.00	....	....	18,324.00
Torpedoes and converting torpedo boats	9,629.79	51,753.47	....	61,383.26
Arming and equipping Naval Militia	38,537.26	3,830.58	....	42,367.84
Construction and repair, 1911	13,498.66	....	....	13,498.66
Construction and repair, 1912	1,453,772.98	....	....	1,453,772.98
Increase Navy, C. & M.	376,189.13	....	....	376,189.13
Increase Navy, colliers	52,746.04	....	....	52,746.04
Increase Navy, torpedo boats	146.77	....	....	146.77
Steam machinery, 1911	17,722.34	....	82.39	17,804.73
Steam machinery, 1912	1,680,956.90	1,515.00	....	1,682,471.90
Contingent, S. & A., 1911	492.43	....	....	492.43
Contingent, S. & A., 1912	25,452.60	....	....	25,452.60
Naval hospital fund	49.24	....	....	49.24
Contingent, M. & S., 1912	207.38	....	....	207.38
Medical department, 1912	134.36	....	....	134.36
Total	16,946,376.33	11,284,450.68	311.79	28,231,138.80

STATEMENT D.

TABLE 1.—*Statement showing the value of stores under title X (excepting provisions and clothing and small stores) carried on the books of general storekeepers, ashore and afloat, custodians of coaling stations, and masters of naval colliers, on July 1, 1911, the receipts from purchase and other sources, the expenditures during the year, and the balances on hand on June 30, 1912.*

		On hand July 1, 1911, with receipts and expenditures during fiscal year 1912.	Balances on June 30, 1912.
Balances on hand ashore (see Table 2)		$72,891,341.64	$77,534,671.65
Balances on hand afloat (see Table 3)		1,690,429.10	1,982,039.83
Shipments between stations and vessels in transit		778,887.56	1,270,154.46
Naval stores temporarily in custody of War Department and others		527,364.17	695,045.27
Total on hand July 1, 1911		75,888,022.47	
Received during fiscal year 1912:			
From open purchase	$2,826,154.24		
From contracts	25,874,065.10		
From other Government departments and Marine Corps	698,706.22		
From manufacture, title Z	25,575,627.05		
From ships, titles B and Y	10,580,963.81		
From provisions and clothing accounts	59,898.89		
Material furnished with new vessels by contractors	363,254.18		
From plant account and salvage	282,077.57		
Unused material returned for credit	57,441.58		
From gain by inventory	190,615.95		
Total receipts		66,508,804.59	
		142,396,827.06	
Expended during fiscal year 1912:			
For use	28,551,516.64		
Sales to other Government departments, Marine Corps, etc	426,005.22		
Total (see Statement B, Table 2)	28,977,521.86		
To ships, titles B and Y (see Statement C)	28,231,138.80		
Fuel issued to naval officers	13,724.30		
To provisions and clothing accounts	39,978.72		
Condemned to be sold, title W	789,006.97		
Condemned, loss by appraisal, title W	2,863,545.20		
Total expenditures		60,914,915.85	
Total		81,481,911.21	81,481,911.21

STATEMENT E.

Statement of the value of stores under Titles B and Y received and expended by the several departments of ships in commission, excepting medical and pay officers' stores, for the fiscal year ending June 30, 1912.

Bureau.	Balance on hand July 1, 1911.	Receipts.	Total on hand and received.	Expended for use and condemned.	Expended by transfer.	Total expenditures.	Balance on hand June 30, 1912.
Equipment	$9,809,975.26	$2,899,871.01	$12,709,846.27	$838,230.72	$1,636,419.31	$2,474,650.03	$10,235,196.24
Ordnance	47,819,538.30	19,580,688.51	67,400,226.81	1,554,571.12	9,654,780.38	11,209,351.50	56,190,875.31
Construction and Repair	5,001,803.90	1,963,537.40	6,965,341.30	735,840.78	648,797.04	1,384,637.82	5,580,703.48
Steam Engineering	3,417,912.36	5,625,332.71	9,043,245.07	4,357,123.97	627,848.50	4,984,972.47	4,058,272.60
Supplies and Accounts	56,325.67	32,302.35	88,628.02	15,588.96	8,316,97	23,905.93	64,722.09
Total	66,105,555.49	30,101,731.98	96,207,287.47	7,501,355.55	12,576,162.20	20,077,517.75	76,129,769.72

Balance on hand July 1, 1911	$66,105,555.49	
Received during fiscal year 1912	30,101,731.98	
		$96,207,287.47
Expended, cost of commission (use and condemned)	7,501,355.55	
Expended by transfer to yards, ships, etc	12,576,162.20	
		20,077,517.75
Balance on hand June 30, 1912		76,129,769.72
Value of stores in transit from yards and stations to ships		1,735,231.29
Value of stores on board ships and in transit under titles B and Y on June 30, 1912		77,865,001.01

STATEMENT G.

Statement of public sales of condemned Government property.

Dates of sales.	Places of sales.	By whom deposited.	Gross receipts.	Expenses of sales.	Net receipts.	Credited to miscellaneous receipts.	Credited to appro ation— Clothing and small stores.	Ordn mate proc of sa
June 20, 1912	Portsmouth, N. H	R. H. Woods	$17,064.90	$1,339.89	$15,725.01	$15,561.21	$20.28	$
Nov. 2, 1911	Boston, Mass	J. S. Carpenter	36.00	25.90	10.10	10.10		
Nov. 9, 1911	do	do	26,694.80	826.60	25,868.20	25,868.20		
May 3, 1912	do	do	18,452.72	1,196.54	17,256.18	17,204.99	30.77	
Oct. 2, 1911	Naval Torpedo Station, Newport, R. I	J. R. Sanford	906.14	73.16	832.98	832.98		
Feb. 6, 1912	do	J. W. Morse	12,506.12	18.17	12,487.95	123.39		12,
July 25, 1911	Naval Training Station, Newport, R. I	T. S. O'Leary	2,722.03	10.35	2,711.68	2,711.68		
Dec. 6, 1911	do	do	529.46	10.35	519.11	519.11		
Dec. 22, 1910	New York, N. Y	Reah Frazer	12,370.88	592.90	11,777.98	11,777.98		
Apr. 5, 1911	do	do	2,518.51	15.21	2,503.30		2,503.30	
June 26, 1911	do	do	10,558.68	372.92	10,185.76	736.68	9,347.55	
Sept. 27, 1911	do	do	4,111.25	23.28	4,087.97	4,087.97		
Nov. 22, 1911	do	do	23,993.42	4,828.57	19,164.85	16,965.76	1,420.98	
Jan. 11, 1912	do	do	325.51	5.50	320.01	320.01		
Jan. 12, 1912	do	Jonathan Brooks	103.95	5.25	98.70	98.70		
Feb. 27, 1912	do	do	62.88	4.00	58.88	58.88		
Mar. 8, 1912	do	do	3,714.20	21.42	3,692.78		3,692.78	
May 17, 1912	do	do	36,037.02	5,366.25	30,670.77	29,012.17	1,588.72	
May 27, 1912	do	do	8,449.75	45.05	8,404.70	8,404.70		
Feb. 1, 1912	Philadelphia, Pa	R. H. Orr	8,017.43	481.50	7,535.93	7,466.76		
June 29, 1911	Naval Home, Philadelphia, Pa	M. C. McDonald	100.00		100.00	100.00		
May 1, 1912	do	S. McGowan	65.27		65.27	65.27		
Sept. 23, 1911	Baltimore, Md	R. T. M. Ball	132.00		132.00	132.00		
Apr. 8, 1912	do	do	60.60		60.60	60.60		
Aug. 9, 1911	Naval Academy, Annapolis, Md	Jas. S. Phillips	782.50	114.32	668.18	668.18		
Feb. 2, 1912	do	M. M. Ramsay	1,001.00	61.69	939.31	939.31		
Feb. 19, 1912	do	do	2,455.00	41.50	2,413.50	2,413.50		
Feb. 9, 1912	Washington, D. C	J. R. Martin	35,617.62	307.30	35,310.32	35,310.32		
Apr. 12, 1911	Indianhead, Md	Thom Williamson, jr	18,131.59	669.95	17,461.64	17,461.64		
July 10, 1911	do	do	620.37	20.00	600.37	600.37		
Oct. 27, 1911	do	do	15,606.79	696.37	14,910.42	14,910.42		
Dec. 6, 1911	do	do	618.01	8.60	609.41	609.41		
Sept. 25, 1911	Norfolk, Va	Wm. W. Galt	10,537.92	1,177.90	9,360.02	9,360.02		

STATEMENT G—Continued.

Statement of public sales of condemned Government property—Continued.

Dates of sales.	Places of sales.	By whom deposited.	Gross receipts.	Expenses of sales.	Net receipts.	Credited to miscellaneous receipts.	Credited to appro ation—	
							Clothing and small stores.	Ordn mate proce of sa
Nov. 3, 1911	Charleston, S. C.	H. D. Lamar	$1,113.72	$8.20	$1,105.52	$1,105.52		
Mar. 20, 1912	do	do	76.00		76.00	76.00		
July 21, 1911	Key West, Fla.	R. V. Bleecker	75.00		75.00	75.00		
Mar. 18, 1912	do	do	60.00		60.00	60.00		
Oct. 5, 1911	Pensacola, Fla.	J. J. Luchsinger, jr	887.24	27.60	859.64	859.64		
Oct. 16, 1911	do	do	257.00	3.70	253.30	253.30		
Apr. 9, 1912	do	H. D. Lamar	117.00		117.00	117.00		
Apr. 19, 1912	do	do	3,680.09	175.60	3,504.49	3,504.49		
Apr. 20, 1912	do	do	519.05		519.05	519.05		
May 9, 1912	do	do	8.75		8.75	8.75		
Sept 30, 1911	New Orleans, La.	C. E. Parsons	3,635.68	76.44	3,559.24	3,559.24		
Apr. 3, 1911	Mare Island, Cal	C. M. Ray	8,140.13		8,140.13	8,140.13		
June 2, 1911	do	do	976.00	26.80	949.20	949.20		
Jan. 3, 1912	do	do	3,400.00	16.50	3,383.50	3,383.50		
Mar. 14, 1912	do	do	1,505.00	7.00	1,498.00	1,498.00		
Apr. 25, 1912	do	do	510.00	15.70	494.30	494.30		
Sept. 18, 1911	Puget Sound, Wash.	R. B. Lupton	6,132.58	416.49	5,716.09	4,589.04	$534.96	$5
Nov. 2, 1911	Naval Training Station, Great Lakes	W. V. H. Rose	875.90		875.90	875.90		
Nov. 1, 1911	Cavite, P. I	Ray Spear	1,075.20		1,075.20	1,075.20		
Feb. 20, 1912	do	do	5,292.33	94.46	5,197.87	4,682.16	272.06	2
Apr. 8, 1912	Cleveland, Ohio	Jonathan Brooks	50.00		50.00	50.00		
Apr. 29, 1912	do	J. R. Martin	8.00		8.00	8.00		
	Total		313,298.99	19,228.93	294,070.06	260,275.73	19,411.40	14,3

STATEMENT OF PUBLIC SALES OF CONDEMNED VESSELS.

Dates of sales.	United States vessel.	Places of sales.	By whom deposited.	Gross receipts.	Expenses of sales.	Net receipts, credited to miscellaneous receipts, proceeds of sales.	Purchasers.
Oct. 4, 1911	Coal barge No. 62	San Juan, P. R	J. H. Merriam	$65.00	$4.10	$60.90	Ramon Abarca.
Nov. 13, 1911	Alliance	do	do	2,300.00	175.12	2,124.88	Sucesores de Abarca.
Nov. 20, 1911	Hist	Portsmouth, N. H	J. R. Martin	2,421.00	48.84	2,372.16	M. H. Olsen.
Feb. 19, 1912	Pensacola	Mare Island, Cal	J. H. Merriam	12,025.00	35.96	11,989.04	Henry J. Rogers.
Mar. 11, 1912	Locust	do	do	3,184.00	24.61	3,159.39	Mark P. Geirrine.
Do	Floating dry-dock, Pensacola, Fla.	Pensacola, Fla	do	31,600.00	53.29	31,546.71	William Evans.
Apr. 2, 1912	Isla de Cuba	Charleston, S. C	Reah Frazer	57,268.00	....	57,268.00	Republic of Venezuela.
Apr. 19, 1912	Mindoro	Cavite, P. I	Ray Spear	1,055.75	106.93	948.82	J. M. Poizat & Co.
June 10, 1912	Yosemite	Norfolk, Va	J. H. Merriam	11,655.00	132.96	11,522.04	Boston Iron & Metal Works.
Do	Yankee	Aground at entrance of Buzzards Bay, New Bedford, Mass.	do	2,010.00	32.59	1,977.41	Wm. W. Wotherspoon.
Do	Atlanta	Charleston, S. C	do	21,200.00	32.59	21,167.41	Frank Rijsdyk's Scheepesloop rij.
Do	Alvarado	Morgan City, La	do	851.00	32.59	818.41	W. McCausland.
	Total			145,634.75	679.58	144,955.17	

STATEMENT G—Continued.

List of purchasers of condemned Government property, with amounts received from each.

Navy Yard, Portsmouth, N. H., June 20, 1912:	
Laundry fund, naval prison	$147.00
C. H. Stewart	86.00
Jos. P. Curran	15.25
W. S. Nolan	297.55
John Yarwood	2,391.19
Arthur England	51.76
Jos. N. Parker	10.06
C. B. Karlson	16.59
Horace Mitchell	49.55
Wm. H. Harrison	1,605.93
V. E. Hulteen	92.00
Atlantic Marine Exchange	104.38
David L. Marks	5,253.21
L. I. Williams	12.56
I. M. Gerber	352.84
Louis Miller Co	160.41
Portsmouth Foundry Co	102.20
Jerry Lyons	15.00
G. A. Bissett	2.05
Joseph Myerson	276.00
John A. Quinn	25.00
Gutterson & Gould	2,708.17
J. Lipsitz Co	434.52
G. A. Badger	20.00
Shea & Donnelly	325.00
T. W. Mullen	26.00
L. C. Pontez	195.84
S. J. Wilson	4.00
The Perry Buxton, Doane Co	477.00
Geo. W. Ross & Co	1,807.85
	17,064.90
Navy Yard, Boston, Mass., Nov. 2, 1911:	
H. M. Cushing	36.00
Navy Yard, Boston, Mass., Nov. 9, 1911:	
American Iron & Metal Co	255.00
Atlantic Marine Exchange	23.78
Thos. L. Blythe	73.25
T. W. Brophy	102.57
T. C. Bucknam	32.00
Thos J. Burke	123.62
Thos. Butler & Co	706.65
B. F. Butrick	10.00
Buxton, Doane Co	5,982.18
F. C. Churchill	10.10
Joe Cotter	38.40
James W. Cross	4.50
C. J. Donovan	492.05
F. H. Foster	107.00
Gutterson & Gould	97.00
Cal Hirsch & Sons	410.00
C. E. Hull & Co	196.02
L. J. Kelly	31.56
M. McDermott	56.15
Joseph Myerson	203.78
N. E. Smelting & Refining Co	90.87
V. B. Nolan	2.10
G. M. Poland	56.56
C. H. Riley, jr	112.35
Elvin Salow	11.53
L. Sovrensky	20.01
C. H. Squires	51.77
R. W. Warren	30.00
R. B. Wheeler	5.25
R. C. Wilson	6.00
Barney Hess	17,352.75
	26,694.80
Navy Yard, Boston, Mass., May 3, 1912:	
Chas. Anderson	1,272.63
Atlantic Junk Co	350.18
Atlantic Mfg. Co	24.64
S. Berkman	5.13
Thos. W. Brophy	27.54
J. J. Burke	40.00
Thos. Butler & Co	1,072.04
N. M. Carman	112.00
Chelsea Iron & Coal Co	2,655.52
J. J. Chaulk	2,602.03
H. Cohen & Co	217.97

STATEMENT G—Continued.

List of purchasers of condemned Government property, with amounts received from each—Continued.

Navy Yard, Boston, Mass., May 3, 1912—Continued.	
J. M. Crowley	$12.05
F. P. Del Deo	75.70
John Dignam	11.00
C. J. Donovan	829.56
Wm. E. Geyer	422.45
E. E. Hamblen	225.00
C. J. Herbert	132.60
Geo. F. Ingalls	6.15
J. Joseph & Bros. Co	25.13
J. Lipsitz Co	3,922.47
Louis Miller Co	656.48
M. W. Nelligan	127.50
Wm. S. Nolan	104.46
Max Rosenfeld	18.50
C. H. Riley	318.60
Aaron Schwartz	75.12
J. A. Sheehan	18.00
Shepard Clark Co	6.00
Chas. Swanson	60.00
Louis E. Tracy	456.12
Gutterson & Gould	2,570.15
	18,452.72
Naval Torpedo Station, Newport, R. I., Oct. 2, 1911:	
Max David	870.85
Joe Danin and E. Solomon	17.29
P. J. Sheehan	11.00
John F. Smith	7.00
	906.14
Naval Torpedo Station, Newport, R. I., Feb. 6, 1912:	
Max David	12,373.10
J. F. Nolan	3.50
John F. Smith	.50
E. W. Loring	15.00
W. J. McCool	20.00
Max Titz	94.02
	12,506.12
Naval Training Station, Newport, R. I., July 25, 1911:	
P. J. Coffey	11.00
B. Goldstein	151.56
Max Titz	319.71
Eric Sestrom	15.00
Max David	1,094.01
Francis Bannerman	1,107.01
Barney Hess	23.74
	2,722.03
Naval Training Station, Newport, R. I., Dec. 6, 1911:	
Max David	2.11
M. Titz	90.18
Moses David	224.67
C. H. Faireges	160.50
Roy H. Beattie	52.00
	529.46
Navy Yard, New York, Dec. 22, 1910:	
Isaac Kamrass	12,370.88
New York, N. Y., Apr. 5, 1911:	
John H. Lyon & Co	762.19
S. Rawitser & Co. (Inc.)	592.14
Jos. Libmann & Co	1,164.18
	2,518.51
New York, N. Y., June 26, 1911:	
Francis Bannerman	2,768.89
Cal. Hirsch & Sons I. & R. Co	1,132.80
J. Reynolds	2,470.20
A. Weinberger & Co	64.50
W. Stokes Kirk	1,406.25
Chas. Seligman	1,714.26
L. C. Pontez	189.38
H. J. Smith	22.50

STATEMENT G—Continued.

List of purchasers of condemned Government property, with amounts received from each—Continued.

New York, N. Y., June 26, 1911—Continued.	
N. Buchman	$105.75
E. J. Hummel	75.00
H. F. Grow	98.65
M. R. Rodrigues	382.00
Paul Grimm	105.25
Frederick Votteler	23.25
	10,558.68
New York, N. Y., Sept. 27, 1911:	
H. A. Hitner's Sons Co	2,893.00
Gregory Wrecking & Construction Co	22.50
N. Buchman	1,175.75
P. Murray	20.00
	4,111.25
Navy Yard, New York, N. Y., Nov. 22, 1911:	
A. De Angelis	11.00
Philip S. Francis	80.25
Paul Grimm	172.50
F. H. Lovell & Co	117.00
C. S. Nathan	2.10
Michael Flynn	184.20
John Gillette	18.56
D. Nutman	143.75
Richard Bennett	75.25
Wm. A. Hall's Son	49.10
W. A. Metcalf	71.13
Benjamins	26.00
R. Tobin & Sons	753.42
F. Bannerman	496.06
Henry Karlsson	23.00
Josh H. Welsh	185.85
R. G. Packard Co	18.08
S. Rawitser & Co. (Inc.)	124.68
John Greig	228.59
Alex Simpson	505.00
Wm. B. Selden	69.60
N. Frank & Sons	341.05
P. Murray	162.00
I. Kamrass	128.48
Kirtland Bros. & Co	504.39
L. C. Pontez	7.08
S. Katz & Bulsen	7.60
James Berrian	207.95
Barney Hess	10,936.50
John J. Lynch	169.90
John Jamieson	102.00
Thos. A. Gaines	35.00
R. Gelb & Sons	23.00
Wm. Kinsey	50.50
J. McGovern	8.64
Geo. Klenk	110.00
Josh Martin	55.00
Aylward Bros	80.00
Cal. Hirsch & Sons, I. & R. Co	92.60
John Smith	2.50
Thos. H. Phinney	100.00
Wm. G. Williams	58.00
Hector De Jorio	35.00
Atlantic Manufacturing Co	777.12
Swartz & Laird	130.57
B. B. Abrahams	662.50
Wm. J. Bannerman	2,483.38
L. London	58.09
George W. Einstock	41.66
Frank Ritter	81.00
E. D. Constantine	11.20
F. W. McCabe	35.00
Zophar Mills	135.15
Dreifus & Co. (Inc.)	83.37
Saks Stamping Co	161.75
C. Osterman	24.35
Jos. Bauer	117.27
M. R. Rodrigues	51.19
F. Votteler & Bro	20.45
Wm. McCreery	348.61
K. Linn	14.94
I. Kaplan	38.35
L. Lapat (Inc.)	45.00
Wm. E. Spencer	53.00

STATEMENT G—Continued.

List of purchasers of condemned Government property, with amounts received from each—Continued.

Navy Yard, New York, N. Y., Nov. 22, 1911—Continued.	
H. Lewinske	$31.39
R. Amster	235.33
W. Rudnick	10.99
W. Stokes Kirk	115.15
John R. Reynolds	237.89
Roy Engineering Co	7.20
Wm. Cullen & Son	196.90
Columbia Smelting & Refining Works	114.60
Niman & Greenblatt	229.39
Edgar F. Luchenbach	304.00
F. E. Yale	200.00
Gregory Wrecking & Contracting Co	51.15
Nathan Klein & Co	15.00
David Gritz	57.70
Albert Smith	60.65
	23,993.42
Navy Yard, New York, Jan. 11, 1912:	
H. W. Read	325.51
Navy Yard, New York, N. Y., Jan. 12, 1912:	
Wm. Cullen & Son	103.95
New York, N. Y., Feb. 27, 1912:	
Darmstadt, Scott & Courtney	62.88
New York, N. Y., Mar. 8, 1912:	
S. Rawitser & Co. (Inc.)	1,299.68
Darmstadt, Scott & Courtney	1,881.56
Gatti-McQuade Co	532.96
	3,714.20
Navy Yard, New York, N. Y., May 17, 1912:	
J. McGovern	11.40
W. N. Gibson	19.69
A. W. France	7.50
Hurwitz Bros., I. & M. Co	340.45
Cal. Hirsch & Sons, I. & R. Co	10.95
Frank Samuel	1,719.20
E. G. Kane	5.00
S. N. Meyer	209.00
Guiseppe Caresini	250.50
Conrad Muetze	91.00
John P. Beardall	3.00
Wm. McCreery	48.16
J. E. Clancy	113.30
Wm. J. Bannerman	1.27
John Wallace	81.35
Josh H. Murray	10.00
Alex. Sloan, jr., & Co	121.23
H. Lewinske	120.84
R. Tobin & Son	393.94
Emile Bruner	.50
Howard F. Grew	92.67
Wm. H. Harrison	1,173.28
Dreifus & Co	649.30
John Reynolds	25.10
Franchi Bros	8.39
Hamilton S. & R. Works	12,357.06
F. Bannerman	586.94
D. Jacobs & J. Roth	2.00
Thos. Yearsley Co	150.55
C. A. E. Fisenne	54.33
I. Levine	41.50
S. Ruck & B. Nussenbaum	31.50
Edgar F. Luckenbach	224.00
Peter Klockner	152.82
H. Goldberg	23.32
Ralph Cohn	57.53
Columbia Smelting & Refining Works	888.70
Jos. Bauer	22.42
W. E. Spencer	3.02
A. Baruch	83.28
P. Murray	68.24
R. Amster	172.21
John Comery	247.88
M. R. Rodrigues	26.77
Alex. Simpson	127.00
H. G. Gresse	66.00

STATEMENT G—Continued.

List of purchasers of condemned Government property, with amounts received from each—Continued.

Navy Yard, New York, N. Y., May 17, 1912—Continued.	
C. Osterman	83.30
B. Schwartz	11.25
T. Matthews	29.50
Otto Schmeldt	337.53
Chas. Vivian	54.00
Jos. Joseph & Bros. Co	14,757.35
	36,037.02
Navy Yard, New York, N. Y., May 27, 1912:	
E. Levene & Co	3,437.00
France Packing Co	606.00
N. Buchman	85.75
Thos. Yearsley & Co	65.00
Columbia Smelting & Refining Works	4,025.00
George Bender	232.00
	8,449.75
Navy Yard, Philadelphia, Pa., Feb. 1, 1912:	
Atlantic Marine Exchange	38.45
E. Billetter	135.25
W. R. Butterfield	40.00
J. Burcher	67.20
Dreifus & Co	85.51
Edw. Comer	534.46
Craemer Wrecking Co	311.09
J. J. Chaulk	124.91
Wm. Coleman	103.04
Philip S. Francis	42.08
N. Frank & Sons	1,465.39
H. Goldberg	27.35
L. M. Garrett	126.53
S. Hurley	124.20
C. Hirsch & Sons, I. & R. Co	37.50
H. A. Hitners Sons Co	3,523.27
W. Stokes Kirk	244.65
Latta & Terry Construction Co	8.00
R. S. Morrow	75.50
R. Ostermack	90.00
Ridge Iron & Metal Co	22.00
Theo. Rudolph	161.20
Alex. Simpson	200.00
W. S. Sitetser	200.00
Samuel Snell	76.55
W. G. Tolliver	77.55
A. M. Wood	5.15
J. C. Walker	10.60
E. F. Waters	60.00
	8,017.43
Naval Home, Philadelphia, Pa., June 29, 1911:	
Chas. L. Bader	100.00
Naval Home, Philadelphia, Pa., May 1, 1912:	
L. Neely	65.27
Navy pay office, Baltimore, Md., Apr. 8, 1912:	
Boston Iron & Metal Co	60.60
Navy pay office, Baltimore, Md., Sept. 23, 1911:	
Boston Iron & Metal Co	132.00
Naval Academy, Annapolis, Md., Aug. 9, 1911:	
H. Horwitz	73.50
J. W. Trautwein	52.50
Edgar Baum & Co	387.50
D. Savedow	55.00
Louis B. Myers	7.00
H. J. Segall	30.49
Cal. Hirsch & Co	16.00
J. E. McCusker	51.00
Berry & Aikins	22.84
Annapolis I. & M. Co	5.28
W. A. Hamlin	55.49
Harry R. Taylor	2.00
F. B. Frantz	12.60
W. Stokes Kirk	11.30
	782.50

List of purchasers of condemned Government property, with amounts received from each—Continued.

Navy Yard, Pensacola, Fla., Apr. 19, 1912—Continued.	
D. Levy	$15.00
Gunter Elmore	55.00
	3,680.09
Navy Yard, Pensacola, Fla., Apr. 20, 1912:	
D. Levy	504.05
N. Kietinger	15.00
	519.05
Navy Yard, Pensacola, Fla., May 9, 1912:	
C. N. Sweeney	8.75
Naval Station, Key West, Fla., July 21, 1911:	
B. W. Johnson	75.00
Naval Station, Key West, Fla., Mar. 8, 1912:	
M. S. Marshall	60.00
Naval Station, New Orleans, La., Sept. 30, 1911:	
M. Glaser	414.05
Felix Borne, jr	108.00
Jos. P. A. Gast	15.00
K. Wainer	216.55
Stern Foundry & Machinery Co	1,156.76
K. Marx & Sons	1,534.61
R. S. Sterns	61.00
Schwartz Iron & Machinery Co	134.71
	3,635.68
Navy Yard, Mare Island, Cal., Apr. 3, 1911:	
P. Shecter	8,140.13
Navy Yard, Mare Island, Cal., June 2, 1911:	
P. Shecter	725.00
Andy Porter	9.50
Geo. Mendelson	1.60
I. Wollenberg	36.60
William D. Nutz	203.30
	976.00
Navy Yard, Mare Island, Cal., Jan. 3, 1912:	
John Barneson	3,400.00
Navy Yard, Mare Island, Cal., Mar. 14, 1912:	
H. T. Hempstead	1,505.00
Navy Yard, Mare Island, Cal., Apr. 25, 1912:	
Healy Tibbits Construction Co	510.00
Navy Yard, Puget Sound, Wash., Sept. 18, 1911:	
V. W. Hoxie	160.00
J. B. Sledge	97.00
Seattle Tent & Awning Co	688.12
C. Robinson	52.50
F. Poston	85.00
B. Marcus	225.15
A. Croxton	28.60
H. W. Long	55.00
B. L. Douglass	209.75
Alaska Sail Loft & Supply Co	289.86
M. E. Spiro	566.27
S. Sherman	161.42
J. P. Kirk	89.75
H. R. Witte	4.55
N. Mersch	2.50
Ind. Asphalt & Paving Co	53.20
L. L. Lent	39.97
I. Yates	13.58
A. F. Keil	4.00
C. E. Pratt	1.05
S. Henderson	1.00
E. E. Craven	2.50
C. R. King	5.00
H. Hudson	8.50
Sunde & Erland Co	222.75
J. Douglass	11.00
D. H. Wolfe	6.50
E. T. Harris	6.25

STATEMENT G—Continued.

List of purchasers of condemned Government property, with amounts received from each—Continued.

Navy Yard, Norfolk, Va., Sept. 25, 1911—Continued.	
R. C. Bailey	$40.00
L. W. Brown	153.00
Fred Cramer	507.77
M. T. Cashin	368.08
J. J. Chaulk	1,743.33
C. H. Culpepper	5.15
J. H. Curtis	26.10
Coastwise Dredging Co	884.00
W. A. Raymond	5.00
W. F. Robertson	64.95
Dreifus & Co	138.00
Driefus & Sons	2.00
H. J. Segall	86.58
A. Schraeder's Sons	200.00
Frank Samuels	21.00
S. Solomon	51.10
G. C. Schimpf	42.60
C. S. Stanworth	6.00
Smith & McCoy	30.00
Garrett & Co	35.00
J. Goldstein & Sons	2,098.71
W. H. Harrison	43.76
Chas. L. Irwin	20.33
B Hess	244.18
S. W. Harding	20.25
Warwick Machine Co	40.28
J. E. Waff	48.00
J. D. Ketcham	10.28
W. Stokes Kirk	261.50
A. McClean & Co	107.50
W. G. Maupin	76.00
Thos. McGrath	7.00
Nassau Smelting & Refining Co	455.00
Nichols & Hodges	35.25
Old Dominion Marine Corporation	5.00
Henry Zanger	8.50
	10,537.92
Navy Yard, Charleston, S. C., Nov. 3, 1911:	
Chas. H. Yaeger	25.00
Edwin J. Doran	25.00
William Johnson	65.00
P. D. Hay	200.50
W. I. Connier, jr	26.00
W. H. Johnson	51.00
C. T. Joyner	3.00
Bell Bros. & Co	678.82
J. C. Carter	2.00
A. J. Schwartz	37.40
	1,113.72
Navy Yard, Charleston, S. C., Mar. 20, 1912:	
Charles E. Milton	76.00
Navy Yard, Pensacola, Fla., Oct. 5, 1911:	
Gulf Machine Works	27.30
J. S. Walton	165.00
C. D. Smith	106.00
David Herschkovitz	321.50
Schwartz Iron & Metal Co	267.44
	887.24
Navy Yard, Pensacola, Fla., Oct. 16, 1912:	
George O. Fell	75.50
Levy & Hallmark	80.00
J. M. Crona	101.50
	257.00
Navy Yard, Pensacola, Fla., Apr. 9, 1912:	
George Bauer	117.00
Navy Yard, Pensacola, Fla., Apr. 19, 1912:	
Gulf Machine Works	3,499.79
J. E. Oubre	1.25
J. S. Walton	20.00
David Herschkovitz	68.05
O. J. Semmes	21.00

STATEMENT G—Continued.

List of purchasers of condemned Government property, with amounts received from each—Continued.

Naval Academy, Annapolis, Md., Feb. 2, 1912:	
Raymond L. Moss and F. M. Duvall	$1,001.00
Naval Academy, Annapolis, Md., Feb. 19, 1912:	
W. B. Hargrave	2,455.00
Navy Yard, Washington, D. C., Feb. 9, 1912:	
American Iron Machinery Co	43.80
Atlantic Marine Exchange	140.78
W. G. Binnix	156.00
L. Brenner	122.60
Cook, Bernheimer & Co	35.25
D. D. Davis	15.80
Dreifus & Co. (Inc.)	313.86
Charles Dreifus Co	2,976.30
J. Dreifus & Sons	242.25
T. J. Einstein	54.50
Frederick Iron & Metal Co	47.06
R. Goldstein & Sons	24.00
Barney Hess	4,152.79
Illinois Smelting & Refining Co	5,424.67
William S. Kirk, jr	35.38
E. B. Leaf Co	754.67
Leicester Rubber Co	83.94
John J. Lynch	331.74
Edward Mullin	195.00
J. Nuttall	350.12
G. W. Price	136.00
Frank Samuel	10,874.61
L. F. Seyfert's Sons	375.68
Louis Simon	113.10
F. S. Smith	771.49
Frank Toomey (Inc.)	31.51
Union Smelting & Refining Co	6,841.60
H. L. Winterer	503.00
Woolford & Thomas	470.12
	35,617.62
Naval Proving Ground, Indian Head, Md., Apr. 12, 1911:	
Boston Iron & Metal Co	1,303.54
Columbia Smelting & Refining Co	1,323.83
Jos. Rosenthal's Sons (Inc.)	947.00
George Sachsenmaier & Co	1,367.25
Morris Weil & Sons	13,189.97
	18,131.59
Naval Proving Ground, Indian Head, Md., July 10, 1911:	
General Chemical Co	620.37
Naval Proving Ground, Indian Head, Md., Oct. 27, 1911:	
Atlantic Manufacturing Co	2.75
Berry & Aikins	38.34
William H. Gaskins	56.09
Morris Weil	339.10
Jos. Rosenthal's Sons (Inc.)	43.65
Jos. J. Hitner	1,024.77
Louis Simon	1,596.75
Williams & Freeman	12,505.34
	15,606.79
Naval Proving Ground, Indian Head, Md., Dec. 6, 1911:	
Butterworth-Judson Co	308.01
J. V. Mulligan	310.00
	618.01
Navy Yard, Norfolk, Va., Sept. 25, 1911:	
Atlantic Marine Exchange	360.67
W. J. Bannerman	521.36
J. S. Askew & Bro	51.14
N. Block & Co	551.30
Chas. S. Purvess	369.29
J. C. Perry	36.53
Berkeley Machine Works	35.50
Beazeley & Blandford	20.13
James L. Botts	150.00
Boston Iron & Metal Co	555.80

STATEMENT G—Continued.

List of purchasers of condemned Government property, with amounts received from each—Continued.

Navy Yard, Puget Sound, Wash., Sept. 18, 1911—Continued.	
C. H. Shuster	$46.00
W. H. Murphy	18.95
R. B. Fryett	27.15
R. O. Hilstad	15.55
C. H. Randall	3.00
V. G. S. Fisher	28.50
E. Klinghammer	2.95
J. Buttnick	15.00
C. Grahm	22.85
A. E. Penor	11.30
A. Olsen	7.00
M. M. Sparrow	4.00
T. Curtis	10.00
A. Oyen	12.50
W. L. Walters	12.00
Alaska Junk Co	2,162.60
W. Greenberg	39.30
Bremerton R. F. Department, S. B. Lent	4.50
J. K. Pattison	6.30
G. M. Hill	3.22
P. L. Turner	20.50
C. M. Hazlett	5.00
H. E. Ashton	5.15
Mrs. J. N. Shepherd	10.58
G. C. Granger	11.96
Mrs. E. J. Taylor	85.45
M. Melker	3.05
Mrs. H. L. Williams	4.25
J. A. McGillivray	11.60
C. Hirsch & Sons	112.00
W. R. Frey	6.23
J. J. Carey	9.60
Frank Risser	3.00
P. J. Wold	12.10
Mrs. J. E. McGillivrae	8.48
N. L. Ingraham	20.69
Chas. Tessier	13.50
N. E. Erikson	30.10
A. B. Borgers	14.65
A. E. Knudsen	25.00
G. F. Cowdy	2.50
C. Bradley	44.00
J. W. Brown	51.75
R. Olsen	4.00
Star Machinery Co	74.00
	6,132.58
Naval Training Station, Great Lakes, Nov. 2, 1911:	
Chas. E. Nathan	875.90
Naval Station, Cavite, P. I., Nov. 1, 1911:	
Peter Johnson	1,075.20
Naval Station, Cavite, P. I., Feb. 20, 1912:	
Ua Rit	1.50
Uy Hong	25.00
Chong Bee	85.00
M. Goldstein	414.00
Laureano Octavo	6.00
O. H. Klienworth	130.00
J. W. Holland	103.50
W. W. Armstrong	59.00
Chua Ham	400.25
Henry Nichols	580.00
Ang Chance	193.00
Co Quin Sen	63.00
F. B. Ingersoll	52.50
Pujalte & Co	410.00
C. T. Martin	545.50
C. B. Williams	257.50
Geo. C. Simmie	553.00
Tan San Co	32.50
Salvador Ferrer	85.50
Felix Bernete	90.00
Ong Chye	88.50
J. P. Turner	17.50
Simeon Daplas	62.50
Carlos Tirona	18.00
E. Fenicks	68.50
J. W. Wakeley	51.00
Ing Shi	15.50
Jose Martin	180.00

STATEMENT G—Continued.

List of purchasers of condemned Government property, with amounts received from each—Continued.

Naval Station, Cavite, P. I., Feb. 20, 1912—Continued.	
Ing Tioc	$25.00
A. A. Beacon	19.00
Pedro Calagayan	115.50
Pedro Victa	65.00
Shoa Cang	90.00
A. G. Rose	130.00
G. L. Mitchell	35.00
G. Y. Taylor	224.58
	5,292.33
Cleveland, Ohio, Apr. 8, 1912:	
Chase Machine Co	50.00
Cleveland, Ohio, Apr. 22, 1912:	
W. H. Mangan	8.00

TABLE 1.—*Statement of receipts and expenditures of provisions, fiscal year 1912.*

RECEIPTS.

Balances July 1, 1911:		
On hand at navy yards and stations	$570,656.58	
On board ships in commission	817,153.17	
In transit	187,465.95	
		$1,575,275.70
Receipts at navy yards and stations:		
From pay officers	2,189,471.77	
Purchases	3,070,554.56	
From naval auxiliaries	710.40	
From other departments at yards	19,964.41	
From coffee mill (roasted and ground)	208,436.56	
From ice plant, Guantanamo, Cuba	5,929.25	
Gain from advanced prices	3,112.78	
		5,498,179.72
Receipts on board ships:		
From pay officers	4,046,048.14	
Purchases	3,581,917.92	
From other departments of ships	10,343.07	
From United States Marine Corps	1,162.04	
From ships' stores	7,796.68	
Gain from advanced prices	13,541.80	
		7,660,809.65
Total		14,734,265.07

EXPENDITURES.

Expenditures at navy yards and stations:		
To pay officers	$4,795,370.93	
For use (expense account)	2,152.66	
Condemned by survey to loss	7,778.97	
Condemned to be sold at auction	2,749.96	
Lost in transit	794.45	
To other departments at yards	50,915.26	
To United States Marine Corps	18,550.98	
To coffee mill (green coffee)	208,436.56	
To United States Lighthouse Service	83.65	
To naval auxiliaries	17,035.31	
Sales for cash	136,898.45	
Subsistence of lepers, Island of Guam	4,429.97	
		$5,245,197.15
Expenditures on board ships:		
To pay officers	1,440,148.98	
Issues to crew and marines	5,460,521.46	
Extra issues to engineer and dynamo force	94,301.54	
Issues to naval auxiliaries	13,091.19	
Supernumeraries not entitled to pay	7.92	
Issues to surveying expedition, U. S. S. *Paducah*	8,708.88	
To other departments of ships	14,852.00	
To United States Marine Corps	35,065.93	
To naval militias	2,834.70	
To ships' stores	8,878.48	
Sales to messes for cash	448,185.62	
Condemned by survey to loss	92,298.55	
Loss on issues	17,261.76	
Deficit in accounts	2,186.70	
		7,638,338.71
Balances June 30, 1912:		
On hand at navy yards and stations	874,233.66	
On board ships in commission	838,591.59	
In transit	137,903.96	
		1,850,729.21
Total		14,734,265.07

STATEMENT H—Continued.

TABLE 2.—*Provisions—ship's store account.*

RECEIPTS.

Balances July 1, 1911:		
On hand	$171,939.02	
In transit	2,287.83	
		$174,226.85
From pay officers	145,924.16	
Purchases	695,823.19	
From provisions	8,629.06	
From clothing and small stores	67,404.68	
From other departments of ships	1,632.34	
Gain from advanced prices (profits)	96,703.49	
		1,016,116.92
Total		1,190,343.77

EXPENDITURES.

To pay officers	$145,924.16	
Sales	866,177.23	
To provisions	7,799.18	
To clothing and small stores	345.50	
To other departments of ships	447.00	
Crew's entertainment allotment	3,810.48	
Condemned by survey to loss	9,904.23	
For use	3.00	
		$1,034,410.78
Balances June 30, 1912:		
On hand	144,053.46	
In transit	11,879.53	
		155,932.99
Total		1,190,343.77

TABLE 3.—*Statement of receipts and expenditures of provisions, naval auxiliary vessels.*

RECEIPTS.

Purchases	$61,861.18
From pay officers of the Navy	20,774.23
From masters of naval auxiliaries	291.68
Total receipts	82,927.09

EXPENDITURES.

Issues to crew	$65,252.42
Issues to enlisted men of Navy and civilians	1,880.67
To pay officers of the Navy	874.80
To masters of naval auxiliaries	291.68
Sales to civilian officers' messes	2,992.11
Shortage, paid for by masters	358.37
Condemned by survey	1,030.00
Total expenditures	72,680.05
Stores on hand June 30, 1912	10,247.04
Total	82,927.09

STATEMENT H—Continued.

TABLE 4.—*Statement of receipts and expenditures of clothing and small stores, fiscal year 1912.*

RECEIPTS.

Balances July 1, 1911:		
On hand at navy yards and stations	$1,938,232.58	
On board ships in commission	930,097.48	
In transit	178,420.77	
	3,046,750.83	
Less difference between cost and issuing prices	234,479.00	
		$2,812,271.83
Receipts at navy yards and stations:		
From pay officers	3,711,980.44	
Purchases	1,691,662.11	
From United States Marine Corps	3,666.45	
From other departments at yards	1,984.62	
From naval clothing factory	834,128.51	
Gain from advanced prices	13,148.62	
Profit and loss	1,251.75	
From naval auxiliaries	306.53	
		6,258,128.03
Receipts on ships in commission:		
From pay officers	2,461,965.14	
Purchases	4,865.27	
From ships' stores	845.50	
From United States Marine Corps	8,468.67	
From other departments of ships	2,528.28	
Gain on issues	31.07	
Gain from advanced prices	117,824.75	
		2,596,028.68
Total		11,666,428.54

EXPENDITURES.

Expenditures at navy yards and stations:		
To pay officers	$5,487,942.09	
To United States Marine Corps	118.76	
To United States Revenue-Cutter Service	37,153.58	
To naval clothing factory	478,667.09	
To naval militias	69,566.45	
To other departments at yards	59,439.95	
Sales for cash	10,202.30	
Condemned by survey to loss	1,774.79	
Condemned by survey to be sold	22,440.66	
Lost in transit	613.02	
For use and experimental purposes	326.42	
		$6,168,245.11
Expenditures on ships:		
To pay officers	686,003.49	
Issues to officers, crew and marines	1,657,524.51	
To United States Marine Corps	22.20	
To naval prisoners	28,344.65	
To Mississippi flood sufferers	192.75	
To other departments of ships	7,348.50	
To ships' stores	67,429.84	
Sales for cash	43,610.88	
Alterations of clothing	39.00	
Condemned by survey to loss	2,347.09	
		2,492,862.91
Balances June 30, 1912:		
On hand at navy yards and stations	2,176,400.67	
On board ships in commission	883,789.47	
In transit	154,777.52	
	3,214,967.66	
Less difference between cost and issuing prices	209,647.14	
		3,006,320.52
Total		11,666,428.54

STATEMENT H—Continued.

TABLE 5.—*Statement of clothing and small stores fund, June 30, 1912.*

ASSETS.

Cash account:		
Balance in United States Treasury		$1,424,222.47
Stock accounts:		
On hand at navy yards and stations	$2,176,400.67	
On board ships in commission	883,789.47	
In transit	154,777.52	
	3,214,967.66	
Less difference between cost and issuing price	209,647.14	
	3,005,320.52	
On hand at naval clothing factory	84,689.78	
On hand condemned to be sold	12,725.93	
		3,102,736.23
Accounts in course of adjustment by the Auditor for the Navy Department:		
For issues, sales, and transfers	692,968.50	
For sales at auction	7,548.39	
		700,516.89
Total		5,227,475.59

LIABILITIES.

Accounts in course of adjustment by the Auditor for the Navy Department:		
For purchases at navy yards and stations	$92,366.95	
For purchases on board ships	1,911.03	
For transfers from United States Marine Corps	768.45	
For labor, heat, light, and power at naval clothing factory	22,280.29	
For transfers from other departments of ships	1,023.52	
Total liabilities		$118,350.24
Clothing and small stores fund, June 30, 1912		5,109,125.35
Total		5,227,475.59

Midshipmen's store fund.

ASSETS.		
Cash on hand and in subtreasury, Baltimore, Md	$15,912.80	
Merchandise on hand June 30, 1912, as per certified inventory on file in the Bureau of Supplies and Accounts	31,867.17	
Value of material in tailor shop June 30, 1912, as per certified inventory on file in the Bureau of Supplies and Accounts	425.25	
Accounts receivable (from midshipmen and officers)	6,013.31	
Horses, harness, and wagons	791.10	
Dairy loan	35,000.00	
		$90,009.63
LIABILITIES.		
Accounts payable (balance due on deposits received from midshipmen)	14,614.71	
Accounts payable (balance due merchants)	153.05	
		14,767.76
Present worth		75,241.87
GAINS.		
Merchandise	12,050.79	
Discounts	1,861.03	
Tailor shop	297.16	
		14,208.98
LOSSES AND EXPENSES.		
Salaries of clerks and other employees	6,585.67	
Office fixtures	142.64	
Miscellaneous expenses	429.11	
Obsolete stock	612.83	
		7,770.25
Net gain		6,438.73
Worth of fund June 30, 1911		68,803.14
Worth of fund June 30, 1912		75,241.87

STATEMENT J.

SUMMARY OF CONTRACTS ENTERED INTO BY THE PAYMASTER GENERAL, UNITED STATES NAVY, CHIEF OF THE BUREAU OF SUPPLIES AND ACCOUNTS, FOR MATERIAL AND SERVICES.

Value of material purchased after newspaper advertisement and formal contract, as provided by section 3709, Revised Statutes, showing number of classes of material advertised, awards, number of separate proposals received, number of contracts entered into, total value thereof, etc., for the fiscal year ending June 30, 1912.

FISCAL YEAR ENDING JUNE 30, 1912.

Month.	Number of classes advertised.	Number of schedules issued.	Number of copies of schedules distributed.	Number of firms bidding.	Total number of bids received.	Average bids per class.	Number of contracts and bureau orders executed.	Total value of contracts and bureau orders.	Number of specifications in use.
1911.									
July	254	64	50,000	629	1,383	5.44	203	$582,384.34	....
August	260	68	54,300	630	1,555	5.98	205	672,263.37	....
September	396	80	68,000	731	2,322	5.86	289	786,268.42	....
October	440	99	78,400	963	2,518	5.72	348	1,281,026.77	....
November	293	64	53,300	780	1,865	6.36	238	1,217,103.66	....
December	474	79	68,300	931	2,962	6.23	351	1,260,779.94	....
1912.									
January	403	99	77,300	920	2,146	5.32	300	926,514.80	....
February	447	80	65,900	987	2,649	5.93	363	1,149,671.09	....
March	260	52	46,700	488	1,330	5.01	193	862,400.87	....
April	544	84	69,700	939	2,862	5.26	347	1,729,606.78	....
May	432	73	60,500	840	2,357	5.46	312	1,983,366.44	....
June	376	87	68,900	851	1,969	5.24	269	1,510,682.71	....
Total fiscal year 1912	4,579	929	761,300	9,689	25,908	5.66	3,418	13,962,069.19	886
Total fiscal year 1911	4,481	1,085	929,200	9,976	25,217	5.63	3,512	12,972,935.84	827

TA n, *Honolulu, Hawaii; and the Atlantic fleet.*

Yards and statio	Total cost, foreign and American.		Average cost, foreign and American.		Grand total, coal and transportation, foreign and American.	Average cost, coal and transportation, foreign and American.
	Coal.	Transportation.	Coal.	Transportation.		
Puget Sound	$84,746.80	$64,001.56	$3.84	$2.90	$148,748.36	$6.74
Do	83,523.85	170,233.05	3.09	6.30	253,756.90	9.39
Do	155,377.35	188,367.65	3.79	4.59	343,745.00	8.38
Do	81,245.67	202,438.58	2.63	6.57	283,684.25	9.20
Do	176,048.40	264,430.08	2.58	3.85	440,478.48	6.43
Do	21,492.50	51,410.06	2.50	5.98	72,902.56	8.48
Do	93,600.00	182,109.35	2.50	4.89	275,709.35	7.39
Total	696,034.57	1,122,990.33	3.08	4.97	1,819,024.90	8.05
Honolulu	64,774.71	93,536.50	3.21	4.64	158,311.21	7.85
Do	155,935.83	348,174.28	2.95	6.58	504,110.11	9.53
Do	44,792.20	79,989.24	2.69	4.85	124,781.44	7.54
Do	266,515.16	460,422.02	2.62	4.54	726,937.18	7.16
Do	....	....	....	....	....	....
Do	....	....	....	....	....	....
Total	532,017.90	982,122.04	2.78	5.13	1,514,139.94	7.91
Mare Island	149,128.69	125,326.10	3.84	3.25	274,454.79	7.09
Do	160,128.53	362,484.30	2.86	6.47	522,612.83	9.33
Do	229,417.95	494,188.34	2.95	6.35	723,606.29	9.30
Do	66,719.55	147,545.05	2.71	6.00	214,264.60	8.71
Do	131,423.50	236,332.62	2.57	4.62	367,756.12	7.19
Do	188,767.50	447,090.87	2.99	5.44	635,858.37	8.43
Do	15,597.90	31,022.49	2.70	5.37	46,620.39	8.07
Total	941,183.62	1,843,989.77	2.79	5.48	2,785,173.39	8.27
California City Point	40,779.00	85,993.10	2.60	5.68	126,772.10	8.37
Do	141,188.10	244,002.42	2.57	4.44	385,190.52	7.01
Do	181,527.05	385,422.68	2.66	5.66	566,949.73	8.32
Do	263,012.00	584,231.78	2.53	5.63	847,243.78	8.16
Total	626,506.15	1,299,649.98	2.58	5.36	1,926,156.13	7.94
Atlantic Fleet, San Fr and Honolulu	202,943.68	405,968.20	3.04	6.07	608,911.88	9.11
Do	....	....	....	....	....	....
Do	....	....	....	....	....	....
Puget Sound	$696,034.57	$1,122,990.33	$3.08	$4.97	$1,819,024.90	$8.05
Honolulu	532,017.90	982,122.04	2.78	5.13	1,514,139.94	7.91
Mare Island	941,183.62	1,843,989.77	2.79	5.48	2,785,173.39	8.27
California City Point	626,506.15	1,299,649.98	2.58	5.36	1,926,156.13	7.94
Atlantic Fleet Do Do	202,943.68	405,968.20	3.04	6.07	608,911.88	9.11
Total	2,996,685.92	5,654,720.32	2.82	5.32	8,653,406.24	8.14

TABLE 2.—*Shipments from Atlantic range ports during past seven years.*

FOREIGN BOTTOMS.

Yard or station.	Freight rates per ton.				Unit cost of coal.		
	Years.	Lowest.	Highest.	Average.	Lowest.	Highest.	Average.
Puget Sound	1906–1911	$3.29	$6.65	$4.70	$2.45	$3.15	$3.27
Do	1912	4.78	4.99	4.89	2.50	2.50	2.50
Honolulu	1906–1911	3.38	6.85	4.95	2.45	3.30	2.78
Do	1912						
Mare Island	1906–1911	3.30	6.50	4.98	2.45	3.10	2.81
Do	1912	5.37	5.37	5.37	2.70	2.70	2.70
California City Point	1906–1911	3.22	4.50	4.79	2.45	2.70	2.62
Do	1912	5.23	5.49	5.48	2.50	2.70	2.52
Atlantic Fleet, etc	1908–1911	5.75	6.15	6.07	2.65	3.40	3.04
Do	1912						

AMERICAN BOTTOMS.

Yard or station.	Years.	Lowest.	Highest.	Average.	Lowest.	Highest.	Average.
Puget Sound	1906–1911	$7.00	$7.50	$7.27	$2.60	$2.90	$2.66
Do	1912						
Honolulu	1906–1911	5.07	6.25	5.85	2.50	3.10	2.77
Do	1912						
Mare Island	1906–1911	5.75	8.00	6.84	2.50	3.20	2.77
Do	1912						
California City Point	1906–1911	6.50	7.00	6.55	2.60	2.80	2.67
Do	1912	7.50	8.00	7.64	2.50	2.50	2.50
Atlantic Fleet, etc	1908–1911						
Do	1912						

The average cost of all shipments, in foreign and American bottoms, both coal and transportation, from July 1, 1905, to July 1, 1912, has been:

	Per ton.
To Puget Sound	$8.05
To Honolulu	7.91
To Mare Island	8.27
To California City Point (1909–1912)	7.94
To Atlantic Fleet, etc	9.11
General average cost, all shipments, coal and transportation	8.14

Total shipments.

	Tons.
To Puget Sound:	
1906	22,068.80
1907	27,012.00
1908	41,022.50
1909	30,843.50
1910	68,732.00
1911	8,597.00
1912	37,230.02
	225,505.82
To Honolulu, Hawaii:	
1906–7	20,146.37
1908	52,941.50
1909	16,645.00
1910–12 (none 1911–12)	101,599.60
	191,332.47
To Mare Island:	
1906	38,838.16
1907	56,012.50
1908	77,765.50
1909	24,612.00
1910	51,132.28
1911	82,129.50
1912	5,777.00
	336,266.94
To California City Point:	
1909	15,148.50
1910	55,016.00
1911	68,116.50
1912	103,757.50
	242,038.50
To Atlantic Fleet, San Francisco, and Honolulu:	
1908	66,807.50
Total tons shipped	1,061,951.23

STATEMENT K—Continued.

TABLE 3.—*Quantity of coal purchased at home and abroad (by ships) since 1892, and cost thereof, including transportation.*

[NOTE.—The figures up to and including the fiscal year 1908 are taken from Bureau of Equipment reports.]

Year.	Domestic coal.			Foreign coal.		
	Quantity.	Total cost.	Average per ton.	Quantity.	Total cost.	Average per ton.
	Tons.			*Tons.*		
1892	38,450.00	$221,918.66	$5.77	35,017.00	$298,948.55	$8.53
1893	33,257.00	147,999.04	4.45	33,797.00	301,066.23	8.91
1894	42,190.00	178,163.58	4.22	52,146.00	462,192.38	8.86
1895	50,630.00	181,985.89	3.59	47,985.00	336,183.47	7.00
1896	55,162.00	196,795.40	3.57	61,741.00	423,335.98	6.85
1897	82,061.00	280,091.09	3.41	56,268.00	375,840.63	6.68
1898	387,437.00	1,520,119.75	4.02	74,111.00	601,885.53	8.12
1899	195,216.00	1,238,355.40	6.34	85,953.00	441,155.15	5.13
1900	141,921.00	834,527.34	5.88	86,476.00	738,125.63	8.53+
1901	219,042.00	1,379,433.51	6.30	105,066.00	893,677.81	8.50
1902	293,438.00	1,543,869.35	5.26	88,602.00	676,341.74	7.63
1903	385,017.00	1,731,064.69	4.50	102,019.00	704,003.68	6.90
1904	295,344.00	1,708,446.25	4.32	103,232.00	811,483.57	7.86
1905	469,902.00	2,160,274.05	4.81	73,519.00	582,244.16	7.92
1906	621,286.00	2,480,661.27	3.99	51,581.00	348,370.77	6.75
1907	532,586.00	2,178,690.57	4.09+	65,425.00	474,778.87	7.25+
1908	771,921.00	4,546,405.11	5.88+	64,461.00	622,419.24	9.66
1909	817,352.00	3,641,508.18	4.45+	119,953.00	854,708.37	7.12+
1910	994,217.30	4,331,150.36	4.35+	26,619.30	177,713.72	6.67+
1911	853,450.87	3,309,826.62	3.87+	42,432.75	300,046.60	7.07
1912	804,554.61	3,032,024.28	3.76+	18,664.10	116,042.14	6.21+

The quantity of steaming coal on hand June 30, 1912, and in transit, under charter, and the value of same was as follows:

	Tons.	Value.
On hand, ashore	361,757.30	$2,293,590.20
In transit, under charter	63,499.50	539,839.21
Total on hand, and in transit under charter subject to delivery	425,256.80	2,833,429.41

TABLE 4.—*Appropriations for coal and transportation for the last 12 fiscal years.*

Fiscal year—	Amount appropriated.	Deficiency appropriation.	Total.
1903	$2,500,000		$2,500,000
1904	2,500,000	$190,000	2,690,000
1905	2,750,000	210,000	2,960,000
1906	2,750,000	500,000	3,250,000
1907	3,750,000		3,750,000
1908	4,150,000	1,700,000	5,850,000
1909	5,000,000		5,000,000
1910	5,000,000		5,000,000
1911	4,000,000		4,000,000
1912	4,000,000		4,000,000
1913	4,000,000		4,000,000
1914	[1] 5,000,000		5,000,000

[1] Estimated.

STATEMENT L.

Showing the receipts and expenditures of clothing and public property of the Marine Corps during the fiscal year 1912, and the balances on hand July 1, 1911, and June 29, 1912.

	Clothing.	Public property.	Total.
RECEIPTS.			
Balances on hand July 1, 1911	$1,709,861.86	$1,737,753.37	$3,447,615.23
Received during fiscal year 1912	549,655.52	1,199,679.88	1,749,335.40
On hand and received	2,259,517.38	2,937,433.25	5,196,950.63
EXPENDITURES.			
Expended by regular issues	463,520.15	....	463,520.15
Expended by extra issues (sold, etc.)	35,703.52	23,328.85	59,032.37
Expended for use	16,229.49	536,225.99	552,455.48
Decrease in value (S. O. No. 109, N D.)	46,900.35	23,651.91	70,552.26
Condemned by survey	171,587.06	127,627.46	299,214.52
Material for manufacture transferred to public property.	281,970.43	....	281,970.43
Total expenditures	1,015,911.00	710,834.21	1,726,745.21
Balances on hand June 29, 1912	1,243,606.38	2,226,599.04	3,470,205.42

STATEMENT M.

Showing the value of stores of the Naval Establishment June 29, 1912.

Material and supplies in storehouses ashore and storerooms afloat and in transit (title X). (See Statement D)	$81,481,911.21
Equipage and supplies on board ships in commission and in transit (titles B and Y). (See Statement E)	77,865,001.01
Provisions in storehouses ashore and storerooms afloat and in transit. (See Statement H)	2,016,909.24
Clothing and small stores in storehouses ashore and in storerooms afloat and in transit. (See Statement H)	3,102,736.23
Midshipmen's store property. (See Statement I)	32,292.42
Clothing and public property of the Marine Corps. (See Statement L)	3,470,205.42
Medical stores in naval medical supply depots, Brooklyn, N. Y., Mare Island, Cal., and Canacao, P. I	186,153.52
Total	168,155,209.05

REPORT OF THE SURGEON GENERAL UNITED STATES NAVY.

DEPARTMENT OF THE NAVY,
BUREAU OF MEDICINE AND SURGERY,
Washington, D. C., December 2, 1912.

FROM: Surgeon General.
TO: Secretary of the Navy.
SUBJECT: Annual report for fiscal year 1912.

The following report of the activities of the Bureau is submitted.

SECTION I.—*Health conditions of the personnel of the Navy, and of the inhabitants of the island possessions coming under the care of the Medical Corps of the Navy.*

[Being a discussion of the incidence of important or prevalent diseases and injuries and special measures that are or should be employed to treat or combat them, with a view to increasing the efficiency of the naval establishment, at the same time conforming so far as practicable with humanitarian demands.]

I. DISEASES AND INJURIES.

A. GENERAL REMARKS.

The health of the Navy from January 1, 1911, to December 31, 1911, has been good, and shows a slight improvement over that for the previous year and a marked improvement when compared with that for the "average year." The reduction in damage rate from injuries has been more marked than has that from diseases, both for the previous year and for the "average year." The death rate from all conditions shows a marked reduction, both from that of the previous year and of the "average year." Among the natives of Guam the births have exceeded the deaths, while in Samoa the reverse has been true. From January 1, 1912, to June 30, 1912, 26 of the naval personnel were admitted to hospitals other than naval hospitals, 10 to hospitals beyond the continental limits of the United States, and 16 to hospitals within those limits. Further, there have been 2,493 supernumeraries treated by the service during the calendar year 1911, with a total of 43,112 sick days, many of whom were officers and men of the navies of foreign powers.

B. GENERAL INFECTIVE DISEASES.

1. *Tuberculosis.*—a. Naval personnel: The admission rate per thousand for this disease shows a very slight decrease from that for the previous year, the higher figures still persisting among those whose duties confine them below decks, and the highest rate occurring among the musicians. The medical corps furnishes an unusually

large number of cases of this condition. **b.** Native charges: It is estimated that one-sixth of the population of Guam has active tuberculosis, while the increase of the disease among the Samoans has been strikingly rapid, apparently following the recent epidemic of measles.

2. *Typhoid fever.*—**a.** Naval personnel: The rate per thousand for this disease shows a very slight increase over that for the previous year (the typhoid prophylactic was introduced subsequent to the period which these remarks cover), and there have been three outbreaks which were epidemic in character; one of 57 cases occurring at the training station, Norfolk, Va., between June 25 and September 27, 1911; one in the Atlantic Fleet of 20 cases, distributed among 9 ships, occurring between January 1 and March 31, 1911; and one, in the Pacific Fleet of 5 cases, occurring between September 26 and October 24, 1911, all confined to one vessel. **b.** Native charges: During the year there were no cases of typhoid at Guam, nor at Tutuila, Samoa; but recent returns (April, 1912) show that two cases have been imported into Tutuila, the first to be recorded in the history of that possession.

3. *Dengue.*—**a.** Naval personnel: Among the force in tropical countries this disease is an important feature of health conditions and is the most important tropical disease occurring among patients admitted to the naval hospital, Cañacao, P. I. At the naval station, Cavite, P. I., it is reported that its incidence has been greatly lessened, while at the naval station, Olongapo, P. I., not a single case occurred during the six months previous to May, 1912; whereas for the year 1911 an admission rate per thousand of 136.5 is recorded. For the entire service the admission rate per thousand for 1911 was 13.69. **b.** Native charges: The rate for this disease among the native population is not as high as for the naval personnel, but Tutuila, Samoa, has recently been visited by a sweeping epidemic.

4. *Malaria.*—**a.** Naval personnel: The admission rate per thousand for this disease has been slightly increased over that for the previous year. Its incidence at Olongapo, P. I., and Camp Elliott, C. Z., has been markedly reduced; but the rifle range, Winthrop, Md., has become a fertile source of infection. During the year 163 cases of the aestivo-autumnal type were reported, originating mostly in Central America and the West Indies. **b.** Native charges: No malaria is reported from Guam, or Tutuila, Samoa; but it is prevalent at Cavite and Olongapo, P. I.

5. *Contagious diseases.*—**a.** Naval personnel: While these diseases furnish a relatively high rate per thousand (105.14 for 1911 and 123.52 for the previous year), and are persistently a cause of great damage (196.10 for 1911), there have been no large epidemics and their occurrence has been confined largely to those new in the service, and especially to those at training stations, where these diseases may be considered endemic. Only two cases of *smallpox* occurred during the year. **b.** Native charges: A severe epidemic of *measles* visited Tutuila, Samoa, resulting in a death rate of 8.6 per cent, the cases being confined to individuals less than 18 years of age, which comprises the population born since the last outbreak.

6. *Other diseases of this class.*—No *yellow fever* occurred during the year 1911, but, due to unavoidable exposure in an infected South American port, there was an outbreak of eight cases on the *Yorktown*, lasting from January 15 to 27, 1912, with a mortality of 25 per cent.

There have been only 36 cases of *diphtheria*, 12 of *cerebrospinal meningitis*, but *tonsillitis* shows a considerable increase as compared with previous years. No infection with *gangosa* has occurred among the naval personnel, but among the native population there are now 330 cases recorded in Guam, which gives a rate of 27.7 per thousand. *Leprosy* occurred in only one individual of the naval personnel during 1911, a Chinese mess attendant on the Asiatic station. (Another case was reported July, 1912, in the person of a Hawaiian on one of the ships of the Atlantic fleet.) *Filiariasis* has not been reported as occurring in the naval personnel; but among the native charges at Tutuila, Samoa, it is very prevalent.

C. VENEREAL DISEASES.

1. *Combined.*—The combined admission rate for venereal disease was 183.56 per thousand, and while this shows a considerable reduction from that for the previous year, it still exceeds the damage rate of any other disease.

2. *Singly.*—The three more important diseases under this group are alone considered. Syphilis shows an admission rate of 29.65 per thousand, gonorrhea 93.44, and chancroid 31.82, while the rates for the previous year were 24.24, 105.12, and 34.28, respectively.

D. SKIN DISEASES.

The occurrence of this class of disease is still greatest among those new in the service and causes a high degree of damage, the rate per thousand being greater than that for the previous year.

E. GASTROINTESTINAL DISEASES.

The rate for these conditions shows a slight increase over that for the previous year, but the reduction among midshipmen has been marked.

1. *Intestinal parasites.*—**a.** Naval personnel: The incidence of hookworm among recruits at the Naval Training Station, Narragansett Bay, R. I., has been studied and the results show that 28 per cent of men from the Southern States are infected, and of these 50 per cent come from South Carolina and Alabama. **b.** Native charges: Every native in Guam is infected with one or more types of intestinal parasite, the *Ascaris lumbricoides* being practically universal. In Tutuila, Samoa, it is estimated that 90 per cent of the population harbor the hookworm.

2. *Dysenteric affections.*—The rate per thousand for these conditions shows a reduction when compared with the previous year, and although most cases are reported from the Tropics, many are now returned as primary in stations in the temperate zone.

F. OTHER DISEASES.

1. *General.*—*Mental diseases* show a slight increase when compared with the previous year, while *alcoholism* has decreased. Several unusually severe cases of *poisoning by jellyfish* have been reported from Philippine and West Indian waters, and several cases of *ptomaine poisoning* occurred on one of the ships of the battle fleet, due to the use of undressed, cold-storage fowl. Among the natives of Samoa the so-called "Samoan conjunctivitis" (a disease resembling tra-

choma) is very prevalent, but as yet no cases have been reported among the naval personnel.

2. *Occupational.—Lead poisoning* is now recognized to be more common among the naval personnel than was formerly supposed, and its incidence is not confined to painters. It has also been found to exist in a severe type among certain of the civilian employees at navy yards, especially those engaged in manufacturing and mixing paints. True cases of *heat exhaustion* are not common in the Navy, and are practically confined to the fire and engine room force, but the condition of thermic myalgia, or *heat cramps*, is quite common among this same occupational group. Several mild and a few severe cases of *caisson disease* have occurred among divers.

G. INJURIES.

The admission rate per thousand for injuries still remains high, although there has been a certain amount of reduction from that both for the previous and the "average year".

1. *General.—Flat foot* and *hernia* still cause a considerable degree of damage, but there has been a reduction from that recorded for the previous year.

2. *Occupational.—Eye strain* and *injuries* to the visual apparatus resulting from the use of *telescopic sights*, the *periscope*, and high-powered *searchlights* are still evident, and it has been found that many gun pointers and trainers have a considerable degree of astigmatism, which unfits them for the duty they are performing, while the use of the periscope has not infrequently resulted in temporary double vision. The constant necessity for the employment of *artificial illumination* below decks still produces its bad effects, more especially among the clerical force, and the incidence of *foreign bodies* (coal dust and cinders) in the *eyes of the fireroom force* has been marked, giving rise not so much to serious injury as to a loss of time and efficiency. On one of the armored cruisers of the Pacific Fleet during a forced-draft run 5 per cent of the firemen needed attention on this account, necessitating an average loss of service of five minutes each.

H. DEATHS.

Drowning has given rise to a greater number of deaths than any other one cause during the year, as it did last year; but the rate has been reduced, while the deaths from *suicide* are double those of the previous year. *Unusual causes* of death have been reported; three from hanging, and one each from inhalation of chloroform (self-administered for the relief of neuralgia), and lightning stroke, the latter occurring at Winthrop, Md., 2d June, 1912.

II. CURATIVE MEASURES, HYGIENE, AND SANITATION.

A. GENERAL REMARKS.

The careful and accurate observations of the medical officers of the Navy and the intelligent interpretation of statistics have pointed out to the bureau more clearly than ever before the spots in our armor of defense against disease that must be strengthened. The policy of requiring *annual and monthly sanitary reports* from the various ships and shore stations has again proven its value, and coupled with the rectify many insanitary conditions of which otherwise it would have been in ignorance. The new and recognized *methods of medical and surgical treatment* have been adopted, and the bureau has made special effort to keep *medical officers, qualified in special branches*, on duty at the important hospitals and in the fleets. In the case of the fleets it has been impracticable to carry out this latter plan as fully as desired owing to the lack of much needed *hospital ships* on the Pacific and Asiatic stations. In the Pacific Fleet *temporary camps for convalescent patients* have been established from time to time where the vessels were assembled at some convenient point, resulting in rapid recuperation, thus doing away in many cases with the necessity of transfer to a hospital and the consequent loss of time and necessary substitution of untrained for trained men and therefore reduction in fleet efficiency. The *care of the natives at Guam, Samoa, and in the Philippines* continues to be of great value to these people and a source of interest and instruction to the medical officers of the service. The medical and surgical clinics at the Cañacao hospital have been extended, and now all the emergency operative work for Cavite Province is performed at that hospital, a marked advance along humanitarian lines. The establishment of the *office of first lieutenant* has proven a great aid to the prosecution of sanitary measures on board ship. *Cooperation of municipal authorities* with the medical officers of the Navy has in certain instances been of inestimable value to the service in reducing the damage from disease, notably at Norfolk and other towns adjacent to Hampton Roads and at Cavite and Olongapo, P. I. On the other hand, lack of such cooperation has led to much unnecessary discomfort and morbidity.

B. GENERAL HYGIENIC AND SANITARY FEATURES.

1. *Relative to force afloat.*—a. Physical exercise and recreation: The *setting up drills* should be participated in by all officers and men. The present character of these exercises is not satisfactory, and it is probable that a further study of the system that has been recently introduced at the Naval Academy will develop its adaptability to use throughout the service. In addition to those exercises prescribed, the individual use of the Müller system is strongly urged. *Swimming.*—Officers and men should take every opportunity to indulge in this sport, and especially to master the art of swimming in rough water. It should be engaged in not only for its beneficial effects as a healthful exercise, but also for its distinct value as a life-saving measure in emergency. *Rowing, sailing, fishing,* and *hunting parties.*—In addition to the compulsory drills in rowing and sailing, the ready availability of boats for voluntary exercise of this kind and for fishing and hunting parties would add greatly to contentment and result in a marked improvement in general health.

b. Disposal of waste: (1) Garbage and trash.—Three different types of *incinerators* have been tried on battleships of the Atlantic Fleet, and all have demonstrated the practicability of the scheme, but that upon the *Louisiana* has proven the most satisfactory. Apparatus of this kind should be so installed as to minimize the dissemination, to neighboring compartments, of the heat generated, and the hopper should be so placed as to reduce the difficulty of passing the garbage from it to the drying chamber. These two requirements have not been fully complied with in those now in use.

(2) Human excreta.—*Crews' heads.*—The present types of *troughs* (from the standpoint of depth, width, system of flushing, etc.) do not conform to sanitary standards, and are a menace to health. *Slat seats* made of a single piece of close-grained wood have been installed for trial and have many advantages over metal seats. *Live steam* has been used in certain vessels for cleansing and sterilizing, and the practice should become universal. For obvious reasons the *location* of crews' heads should not be confined to one part of a vessel. *Water-closets.*—Several types now in use have inherent defects as well as those due to methods of installation and location.

c. Water supply: (1) Scuttle-butts.—On certain vessels where two large scuttle-butts are provided both are forward, and the needs of the crew would be better conserved if one were placed forward and one aft, and, further, small sized scuttle-butts should be placed in fire and engine rooms. It has been found in one vessel that the waste water from the scuttle-butt drained into the fresh-water supply used in the scullery, which indicates that all such drains should be carefully scrutinized with a view to their emptying into the steaming tanks.

(2) Sanitary drinking terminals.—The "bubbling spring" type of drinking terminal is gradually replacing the old style, common drinking cup, and should absolutely supplant it, and *all* vessels should be so supplied as rapidly as possible. The reports unfavorable to the present type of terminal are based largely upon incorrect methods of use, and it should be seen to that those who fail to properly use these valuable aids to disease prevention are instructed.

(3) Steam launches and boats.—The present method which forces the crews of small boats to obtain their drinking water from a breaker by sucking it up through a glass tube, common to all, should be abolished, and individual canteens supplied to each member of a boat's crew.

(4) Common openings for salt and fresh water.—This arrangement has practically become obsolete, but the condition has been reported (during the year) as still existing on one of our vessels. In every instance these openings should be made distinct.

(5) Distilled water.—The waters of certain harbors, when distilled, have a disagreeable taste (the flavor of kerosene has been noted in water distilled from New York Harbor), and when a reliable supply from shore can be secured it should be used under such circumstances.

(6) The use of harbor water for cleaning purposes.—Water from harbors markedly polluted with sewage (notably New York, Philadelphia, Baltimore, and Norfolk) should not be used for scrubbing decks, cleaning paintwork, etc.

d. Ventilation and heating: (1) Forward compartments of battleships and armored cruisers.—That the ventilation of these compartments, at sea, is still an unsolved problem is witnessed by the fact that in certain instances they could not be occupied for a considerable period (notably in the case of the *Washington,* where the sick bay had to be abandoned and the sick moved to another part of the vessel). The necessity for intakes on the superstructure is imperative, and some method to accomplish this end should be devised. Officers' quarters, on some of those vessels in which they are located forward, have only natural ventilation, which is at certain times inadequate, and should be supplemented by artificial ventilation, as has been done on the newer type of vessel in which this arrangement of quarters is found.

(2) Funnel uptakes.—These great aids to ventilation are frequently entirely or partially blocked by using the platforms for stowing coaling gear, etc. They should be left free of obstructions in order that the maximum benefit may be realized.

(3) Central control stations.—All such stations are in urgent need of better ventilation in order that those assigned to duty in these compartments may be depended upon to perform their important functions uninterruptedly under battle conditions.

(4) Combined heating and ventilating systems.—This method is a good one in principle, but as at present installed on certain ships it has not met with complete success. The defects, from a sanitary point of view, are as follows: (*a*) Low relative humidity of air as delivered; (*b*) inability to maintain an equable temperature in all compartments supplied; (*c*) the necessity for shutting down the supply of heat during "coaling ship" (noticeably in northern climates in winter weather; in the case of the *Vermont* the direct method of heating used in adjacent compartments was not sufficient to warm the sick bay when its supply from the indirect system was shut off by reason of coaling ship); (*d*) the drawing in and distribution throughout the ship of insects. There is now on the market an apparatus designed to rectify these defects which has been successfully used in merchant steamers, and it is urged that this system be adapted to and installed upon naval vessels.

e. Facilities for personal cleanliness: The *increase* in the *allowance of fresh water* for bathing purposes has been markedly beneficial The *provisions for bathing* in the case of the crew are universally inadequate and more space and an increase in the number of fixtures is urgently needed. *Facilities for washing the hands after visiting the "heads"* are imperative. *Laundries* are of great importance in limiting the spread of disease and their installation on shipboard should be more extended. Wherever practicable the size should be such as to permit of their use by the crew. (One ship of the battle fleet has had this principle in practice for some time, resulting in benefit to the crew and a saving of fresh water.)

f. Deck coverings, hangings, etc.: Heavy *linoleum*, if properly laid and kept free from breaks, has proven to be the best form of deck covering, though the Venetian red used in the shellac is not unobjectionable; it wears off as a red dust, and apparently causes the linoleum to "pit." If the coloring were incorporated in the body of the linoleum and the gum shellac dissolved in grain alcohol, this would very probably be avoided. *Canvas* can not be properly laid, deteriorates rapidly, and harbors disease germs. *Rugs and carpets* in compartments subject to much traffic are a menace to health and should only be displayed on state or festive occasions. *Curtains, portières, etc.*, have no place on a modern man-of-war, unless made of washable materials.

g. Structural defects from a sanitary point of view: (1) Insulation of ships' sides.—This has been found to be insufficient in certain vessels, such as the scout cruisers, and gives rise to excessive heat or cold under extremes of climate. In torpedo boats and destroyers, in addition to this condition, sweating of the sides is marked, leading to unhealthful dampness.

(2) Gunports.—When certain vessels are at sea, notably the armored cruisers, water gains entrance through the gunports to the gun deck, used largely as living and recreation quarters by the men. In rough weather this amounts to flooding with 2 to 3 inches of water, thereby doing away with all comfort and causing much unnecessary exposure. It is urged that special effort be made to devise some style of gunport which will obviate such objectionable and insanitary conditions.

(3) Ladders.—The present style of ladder, with lattice treads, leads to much discomfort and is unhygienic; a different pattern should be substituted which will not so readily catch the dirt and can be easily cleaned.

(4) Lockers.—The great difficulty of cleaning behind the numerous lockers as now installed close against the bulkhead or ship's side is recognized. This should be obviated by leaving no blank spaces around the lockers which do not permit of easy access.

(5) Junction of deck with bulkhead or ship's side.—At present the method used leaves an angle difficult to clean and well adapted for the accumulation of dirt. This should be remedied by the establishment of a cove base at all such junctions.

(6) The forward location of officers' quarters, besides being objectionable, is open to criticism from a hygienic and sanitary standpoint.

(7) Unnecessary use of cork paint.—This is frequently seen and gives rise to additional and unnecessary surfaces that readily catch dust and are difficult to clean.

(8) Bunk railings.—To prevent accidents and conduce to comfort, bunks on torpedo boats should be provided with side guards.

h. Periodic disinfection of vessels throughout has been inaugurated and will be generally carried out before ships are recommissioned after going in reserve.

2. *Relative to force on shore.*—**a.** Physical exercises: The personnel on shore has ample opportunity for a variety of physical exertion in addition to those prescribed, and every one should make an effort to engage regularly in some form of outdoor exercise. The new system of physical drill established at the Naval Academy should be introduced throughout the service. *Midshipmen* of the upper class were included this year, for the first time, in the compulsory exercises at the Naval Academy, and beneficial results have been evident, as is also true of the establishment of a swimming beach at that place, whereby these young men obtain the benefits of salt water bathing.

b. Disposal of waste: (1) Garbage and trash.—The best method of freeing a community of its garbage and trash is by *incineration,* though in many localities removal by contract with outside parties is available and satisfactory. Whichever method is used, the waste should be kept, while awaiting removal, in metal cans inclosed in fine-mesh wire cages, and the cans should be periodically cleaned. "Rock pile" incinerators are being used at Guam for garbage, manure, and trash with great satisfaction. An incinerator is being built at the torpedo station, Newport, R. I., and this system of disposal is in vogue at the naval training station and hospital, Great Lakes, Ill., and at the Mare Island Navy Yard. Incinerators are urgently needed at the training station, San Francisco, Cal., and at the naval station, Olongapo, P. I.

(2) Human excreta.—*Incinerators*, both of manufactured and emergency types, have proven of inestimable value, and are far superior to any system of latrines, no matter how carefully the latter may be managed. In Guam the material resulting from the use of the "pail system" is readily destroyed in "rock pile" incinerators. Such an arrangement might easily be adapted to conditions at Olongapo, P. I. Extensive *sewer systems* are being laid in Guam which, it is believed, will result in a marked diminution in the intestinal affections so prevalent among the natives. *Public latrines* are being installed in Agaña, Guam, to reduce soil pollution and limit the number of disease-spreading foci. *Water-closets and urinals.* The few remaining "outhouses" overhanging the water along the the sea walls of the navy yards are a menace to health and should be replaced by proper water-closets and urinals connected with a sewer. In navy yards there is urgent need of such facilities for visitors of both sexes, and they should be provided as soon as practicable.

c. Water supply: (1) Wells.—The water from the artesian well supplying the navy yard, Philadelphia, Pa., has been found to be unsafe, and this source is no longer used for domestic purposes. The Port Royal station now receives an additional supply of pure water from artesian wells driven on the reservation. The supply of distilled water at the naval station, Cavite, P. I., has been supplemented by the driving of an artesian well which furnishes a potable water. The supply for the hospital at Las Animas has been increased and the system of distribution improved and extended.

(2) Impounded rain.—Those stations depending for their supply upon gathered rain water report that the amount is insufficient and the quality not above suspicion. This is particularly noticeable at Tutuila, Samoa, and the magazine at Fort Mifflin, Pa. In such cases this supply should be replaced or augmented by plants for furnishing distilled or boiled water or by artesian wells.

(3) Rivers and lakes.—The filtration plant of the training station, Great Lakes, Ill., is apparently effective. It yields a sufficient and potable supply, although there is undoubtedly some pollution of the lake by sewage from neighboring towns in which typhoid fever is endemic and at times epidemic. The artesian supply for the navy yard, Philadelphia, Pa., has been replaced by the Philadelphia city water with apparently satisfactory results. The great improvement in conditions in Agaña, Guam, resultant upon the establishment of an ample and good water supply from the Fonte River is manifest, and the other towns of this island should be similarly supplied. The naval magazine, Fort Mifflin, Pa., uses, for flushing and washing purposes, the untreated Delaware River water, saturated with the sewage of Philadelphia. This condition is hardly believable, and the risk involved makes other provisions imperative.

(4) Distilled and boiled.—Certain stations have been greatly benefited by the installation of distilling plants involving great expense, but lack of funds has prevented their establishment at points in great need of a pure water supply. The system of furnishing boiled water from a large central plant is a much cheaper method of obtaining a safe and potable supply, and its use, where applicable, is urged.

(5) Sanitary drinking terminals.—This type of faucet has already been installed at many of the shore stations, and its use should be universal.

d. Dust: The grave dangers associated with the dust nuisance at the training stations at Newport, R. I., and Great Lakes, Ill., and at the Las Animas Hospital have been greatly reduced by increasing vegetation, watering and oiling, and this effort should be persisted in.

e. Vessels in dry dock: Sanitation of vessels in dry dock is unsatisfactory. Under the existing conditions there are no proper provisions for bathing or disposal of waste, and the arrangements for heating ships and the baths and water closets ashore are not adequate. The installation of apparatus which would permit of the vessel continuing in the same status as when afloat would obviate these difficulties, but a better method appears to be the construction of barracks for the housing of the personnel of all vessels undergoing repairs at navy yards and the adoption of this plan is again urged.

f. Periodic disinfection of barracks has been instituted at the Great Lakes Training Station, and, should results warrant, will be adopted elsewhere.

g. Swimming pools: The subject of the proper disinfection of water in swimming pools is an important one, and the use of free chlorine gas, furnished in tanks under pressure, is being considered.

h. Disinfectors: Combined steam and formaldehyde disinfectors of large size have proven to be indispensable at the training stations, and their installation at all navy yards and stations is urgently needed.

i. Silent signal system: This system for calling nurses in hospitals has been found to work well in the naval hospital at the training station, Great Lakes, Ill., and is a most valuable aid in maintaining quiet. Its use in all new naval hospitals is contemplated should funds be available for its installation.

j. Canteens: The establishment of canteens, under proper restrictions, at isolated hospitals has been found conducive to contentment among patients and hospital corpsmen, as they are thus enabled to obtain nonalcoholic drinks, candy, stationery, tobacco, etc., without leaving the hospital grounds.

3. *Relative to force both ashore and afloat.*—a. Physical exercise: It appears that the monthly exercise prescribed by General Order No. 193, of June, 1912, would result in greater benefit and lead to more contentment if each officer were permitted to select the form of exercise he prefers, certifying at regular intervals as to its character and amount.

b. Ration: That the *ration in the Tropics* should contain a lower percentage of protein than in the northern latitudes is well recognized, but in our Navy the matter has not received the attention it deserves. With the flexibility of the present ration no radical change need be made, as the end may be accomplished by intelligent cooperation of the medical and pay officers in individual cases, as was done on the *Connecticut.* The waste arising from improper methods of *handling* frozen meat is surprisingly large, and might be obviated by establishing well-considered rules dealing with its storage, transportation, and thawing. No contracts for *frozen undressed fowl* should be made, as such food is a menace to health.

c. Mess gear and some articles of ship equipment: (1) Mess gear.—The enamel ware now in use is far from satisfactory, largely by reason that renders them extremely difficult to clean, notably the syrup jug, coffee pot, and butter dish, and more suitable designs should be adopted. A *food carrier* on the general plan of those formed by superimposed sections with close-fitting edges held in place by perpendicular straps is needed, and could be readily adapted to the present style of pan used for distributing food to the mess tables. It is urged that all *mess gear be boiled* in the washing machine at least once a day. The urgent necessity for substituting a *metal meat tub* for the present wooden type is realized, and the change can not be made too promptly.

(2) The utilization of metal *spit kits*, which has already been inaugurated, is a step in advance, and the old style should soon disappear entirely.

d. Methods of cleaning: The present methods of cleaning, when applied to compartments and rooms, are insanitary, laborious and waste much valuable time which might well be devoted to other important duties bearing upon military efficiency. *Vacuum cleaners* installed in all vessels, barracks, and offices would do away with these objections and produce a more thorough result. "*Swabs*," as used, are a menace to health, and their employment detracts from rather than adds to cleanliness. If used, they should be thoroughly boiled out in lye water three times a week.

e. Clothing: Under existing conditions there is no proper provision for the protection of the personnel when campaigning in northern latitudes in the winter season. Likewise, there are certain articles of clothing authorized for tropical service which are manifestly unfitted for those climatic conditions. The attainment of the highest degree of simplicity and serviceability, with due regard for adaptability to climatic and other hygienic and sanitary conditions, requires the most careful study, and it is urged that a special board be appointed to investigate and report upon this subject.

f. Barber shops: Improvement in conditions surrounding this fertile source of disease has been marked in certain vessels and stations, and there is a general tendency toward betterment throughout the service. The ends desired would be attained more rapidly and more certainly if a policy were inaugurated to definitely set aside a room for this purpose only, to be furnished and equipped by the department in such manner as to meet the requirements of the most advanced city ordinances, and the bureau urges that such a plan be adopted and put into effect.

C. SPECIAL HYGIENIC AND SANITARY FEATURES.

1. *Relative to general infective, venereal, and other diseases.*—a. *Tuberculosis*: A determined campaign against this disease has been undertaken. Special effort is made to eliminate incipient cases and those showing predisposition at the recruiting stations, recruiting depots, and detention barracks; also to detect cases developing among the personnel at the earliest possible moment with a view to the immediate adoption of precautionary measures and the ultimate elimination of these patients from active service. Warnings and instructions have been promulgated verbally and by circulars, and in Guam and Samoa particular efforts toward limiting the ravages of this disease among the native population have been made.

b. Typhoid fever: *Prophylaxis by inoculation.*—The compulsory use of typhoid prophylactic was inaugurated January 1, 1912, and the inoculation of practically the entire naval personnel has been completed without a single serious result or casualty. Only a small fraction of 1 per cent had reactions necessitating rest in bed, and but a small percentage of individuals required to be excused from duty. As this policy has been put into effect so recently, it is impracticable to formulate any comparative data relative to the rate of the disease, but reports, made in response to a bureau circular letter, show that, in men who had received the three injections, only one authentic case of typhoid has occurred, although three were reported as such in which laboratory findings failed to verify the diagnosis. One mild case occurred in a man who had had but two inoculations. One officer, known to be a typhoid carrier, was found to be free of the typhoid bacillus subsequent to receiving the three injections required. The prophylactic administered to the personnel on the Asiatic station was prepared at the naval hospital, Cañacao, P. I. The adoption of the most recent advances in *diet* has materially reduced the convalescent period of typhoid patients, and the sporadic cases that may occur in the future will resume their duties more promptly. Its prevalence in the towns near one of the training stations has made it necessary to take special precautions at that place, and it is reported that one of the large ports of the United States, formerly remarkably free from it, now has a high rate of infection, and we must therefore consider this city among the "typhoid ports." The recent outbreak at the training station, Norfolk, Va., was considered to be due to unsatisfactory conditions existing both on the station and in the near-by towns, and this decision has led to a most commendable effort on the part of the municipal authorities toward their correction, a movement which has been met by the active cooperation of the medical officers of the Navy, and already shows most promising results. The epidemic on the *West Virginia* was considered to have resulted from the presence of a typhoid carrier, associated with the overflowing of the crew's head and the prevalence of flies. A possible source of infection at Guantanamo, Cuba, is swimming at Hicacal Beach, which practice should be discontinued. It is necessary to make special effort to prevent the importation of typhoid into Guam and to limit its spread in Tutuila, Samoa, where it has so recently appeared.

c. Epidemic cerebrospinal meningitis: Antiseptic nasal douching of newly arrived recruits has been employed at a certain naval training station in an effort to limit the number of infections with this disease.

d. Gangosa: Segregation is practiced, coupled with instruction relative to the necessity for cleanliness, isolation, and the reporting of cases, and the use of mercury, iodine, and salvarsan in the treatment of this condition has resulted in a material improvement in the situation.

e. Leprosy: Segregation is strictly carried out and instruction is given relative to the necessity for cleanliness, the destruction of bedbugs and the isolation and reporting of cases. All lepers at Guam have been transferred to the colony at Culion, P. I., and cases developing subsequently will be similarly deported.

precautionary measures and the promulgation of rules regarding them are needed. This is particularly important in view of the recent outbreaks of this disease at Habana, Cuba, and San Juan, P. R.

g. Contagious diseases: The training stations both on the east and west coasts are a menace to the efficiency of the personnel afloat owing to the more than occasional transfer, to ships, of men with certain of these diseases in the incubation stage. Time and expense would be saved if all drafts were isolated the required period prior to sending them to sea.

h. Intestinal parasites and gastrointestinal disorders: Since examination has shown a suprisingly high incidence of hookworm among the naval personnel, especially in men from the southern part of the United States, the routine examination and treatment of recruits from this source is advisable. Quarterly compulsory examinations and treatment for intestinal parasites in the naval personnel and natives of Guam have been established, and limitation of numbers in the medical department alone prevents the inauguration of a like measure in Samoa. A marked reduction in the morbidity resulting from gastrointestinal disorders has been obtained among midshipmen by the establishment of the Naval Academy dairy.

i. Insect-borne diseases: (1) Campaign against the fly: The following circular letter was sent to all medical officers, and since its issue many requests for copies have been received from various outside sources.

> The following facts in connection with the life history of the house fly (*Musca domestica*) will be of value in the adoption of measures for the prevention of the development of these dangerous pests.
>
> Of all material which is favorable for the breeding of flies, horse manure, especially when fermenting, has the first place. This fermentation process goes on best when the manure is piled up in heaps. Other favorable breeding media are found in poultry yards, pig pens, and even in heaped up masses of waste paper or old rags. Vegetable refuse as found in garbage is also a medium of importance. Cow manure is not a favorable medium, probably due to the excessive amount of moisture it contains. Very dry or very wet manure is not liable to breed flies. Last, and most important from the standpoint of transmission of typhoid fever, dysentery, and cholera, is human excrement. When privy systems are in use the utmost care by screening should be taken to avoid access of flies to the fecal material.
>
> The fly eggs are usually deposited in crevices near the surface of the manure or refuse heap, and the larvæ hatch out in from 1 to 3 days. The period may be as short as 12 hours. The larvae or maggots mature under the most favorable circumstances in from 5 to 8 days. If conditions are not favorable for fermentation the period may be lengthened to a month, or longer. The pupal stage is passed through in from 5 to 7 days when conditions are favorable. From the above it will be seen that under favorable conditions flies may develop in from 10 days to 2 weeks.
>
> Of foods liable to be dangerously contaminated by flies carrying the germs of typhoid, dysentery, or cholera, milk is easily the first. The danger of infection from meat or vegetables contaminated by flies is of less degree.
>
> Flies probably do not fly more than 200 yards, but they may be blown by winds for considerable distances, in all probability for 1 or 2 miles. They rarely will be found to fly higher than 75 feet.
>
> The following measures are accepted as the most practical for the handling of the fly problem during the season of their development (Apr. 1 to Dec. 1 in this latitude):
>
> 1. Thorough screening of all places in which food is prepared or served.
> 2. All manure from stables, poultry yards, etc., should be removed at least once a week and buried in pits covered with soil, or placed in screened receptacles.
> 3. The greatest care should be taken of the garbage, and garbage fly traps for garbage cans are to be recommended.

4. For the capturing of flies, large traps 2 to 3 feet square, made of wire-screen sides, with entrance of the character used in the smaller fly traps, will give the best results when flies are very numerous. A very satisfactory bait is cane sugar syrup worked up in bread.

5. Under no circumstances should manure be heaped up in piles about gardens. The manure should be brought from its screened receptacle or soil-covered pit in quantities sufficient for immediate use, and worked into the garden soil and covered by the soil as soon as possible.

The danger, as stated above, from very dry or very wet manure when scattered over a surface is probably slight.

It is to be remembered that flies breeding on adjacent premises may (possibly at a distance of a mile) make the measures adopted apparently failures.

Weak *formalin* solution has been found to be the best and most universally available poison, while in Guam, arrangements have been completed for the introduction of the fly parasite, *spalangia cameroni*. The *screening* of all sick bays, galleys, mess halls, and exposed food is rapidly advancing, and all heads and toilets should be similarly treated.

(2) *Campaign against the mosquito*.—Screening, mosquito nets, draining, clearing, oiling and the use of larvacides, and restriction of liberty to daylight hours are well established principles in infected districts. When the possibility of an epidemic of *yellow fever* threatened Honolulu, the personnel of the Marine Corps rendered valuable aid to the municipal authorities in carrying out preventive measures. The recent epidemic of yellow fever on the *Yorktown*, although throwing grave and urgent responsibilities upon the Medical Department, was promptly controlled by proper sanitary methods, thus enabling the vessel to remain in waters where military necessity demanded her presence. When vessels are in ports in which mosquito borne diseases prevail, the *canopies of launches* should be thoroughly brushed out on each return trip from shore, in addition to other recognized precautions.

j. Venereal diseases: The present system of *prophylaxis* is not entirely satisfactory and the results are disappointing, but the improvement noted is sufficient to warrant its continuance and should lead to greater effort. Delay in obtaining treatment, personal equation of patients and medical officers, and improper use of calomel enter into the failure to reduce the morbidity to as great an extent as expected. The element of time is of great importance, as there was a markedly lower percentage of failures of prophylaxis among those receiving it before 18 hours had elapsed after exposure than in those taking the treatment subsequent to that time. Furthermore, the reports from vessels and stations where prophylaxis has been voluntary do not show as much improvement as those from vessels and stations where the treatment was compulsory. The majority of medical officers have recommended the substitution of the venereal packet for the present method, but there is reason to believe that this method is open to even more objections than the one now in use. Treatment for those who return from liberty within 18 hours after exposure and packets for those going on extended liberty would undoubtedly result in greater benefit.

Salvarsan as a treatment for syphilis will undoubtedly diminish the time lost to the service by reason of this disease, and, furthermore, it has rendered such cases far less of a menace to their associates. The discrepancy between the first part of this statement and the figures shown in the statistical tables is only an apparent one, and is keeping them there one month for observation, whereas formerly such individuals were merely entered for record, and the long period during which they were receiving treatment failed to appear among the sick days. The general issue of this drug to ships, although it would result in a still greater saving of time, is a questionable expedient.

k. Mental diseases.—More thorough and painstaking examinations and more intimate knowledge of psychology on the part of recruiting officers, the study of the temperamental qualifications of applicants for certain ratings, and the more general application of healthful exercises and recreation will undoubtedly reduce the damage to the service from these affections.

2. *Relative to occupational diseases and injuries.*—**a.** Eye strain in gun pointers and those who use the periscope: Careful original selection is practiced and periodic examination of vision should be made, followed up by intraocular examinations by an expert in those cases where the vision is found to have fallen below eighteen-twentieths.

b. Injury to ears from gunfire: Many appliances for the protection of the ear against this source of injury have been submitted and examined, and practical tests of some of these have been carried out in two fleets, but a device complying with all requirements has not yet been found. Thus far the Frank ear stopple has proven the most satisfactory, although there has not yet been opportunity for a thorough trial of the new type of Elliott ear protector.

c. Injuries resulting from artificial illumination: Much has been accomplished toward improving the illumination on the vessels of our Navy, but it is still in a most unsatisfactory state, and additional investigation of this subject is desirable. Injury resulting from *searchlights* has been largely remedied by the use of electrician's glass to eliminate the ill effects of intensity and "Hallauer" glass to absorb the actinic rays, and the use of such glasses should be compulsory. Better facilities for reading and studying have been provided for the enlisted personnel, but they are still far from satisfactory. In many instances the glare of *white interior* decorations has been relieved by proper tinting of bulkheads.

d. Drowning: Through the inauguration of *compulsory swimming exercises* and the establishment of a required standard, the health of the personnel has been benefited, and the death rate from drowning will be reduced. Great moral support resulted to this movement by the withholding of commissions of certain midshipmen who failed to meet the requirement. Types of apparatus for the *resuscitation of the apparently drowned* or those overcome by noxious gases have been investigated and one is being given a trial on the hospital ship *Solace*. Since they will undoubtedly aid in reducing the mortality from this condition, their issue to all submarine tenders and to one ship in each division will be undertaken.

e. Lead poisoning: A campaign to reduce the incidence of lead poisoning, both among the personnel of the Navy and the civilian employees of the department who are exposed, has been inaugurated, and the following circular letter has been issued to all medical officers:

> The bureau desires to have the question of lead poisoning among the personnel on shipboard and at navy yards given careful investigation. It is therefore requested that particular care be taken to determine the existence of such cases and that a full

tion of appropriate preventive measures. Particular attention is invited to an article in the April issue of the Naval Medical Bulletin by Medical Inspector E. R. Stitt, United States Navy, regarding lead poisoning through the inhalation of red-lead-laden dust.

The following data are pertinent to the investigation of this subject:

Lead poisoning in persons in the Navy may be brought about in the following ways:

1. Ingestion of lead as the result of taking food without properly washing the hands and face after painting.

2. By inhalation of lead-laden dust in compartments where lead dust is present as a result of chipping old lead paint or otherwise. This dust may also be swallowed in the saliva or at the time of eating or drinking.

3. By solution in the sweat of red or white lead deposited on the skin and subsequent absorption through the skin. Lead absorption by this method is of slight practical importance.

4. Methods of poisoning by lead through drinking water or in coloring matter in food are of less importance in the naval service than in civil life.

There are four chief types of lead poisoning: (1) Lead colic; (2) lead encephalopathy, in which the central nervous system is prominently effected; (3) the peripheral neuritis type, as shown in "wrist drop"; and (4) lead cachexia.

If the period during which the lead poisoning has taken place be short, the manifestations are chiefly those of colic or lead encephalopathy. In the diagnosis of lead poisoning, the blue line on the gums is the most constant and easily observed sign. The value of this sign is chiefly negative, as probably more than one-half of those working in lead but not having lead poisoning show it. The typical blue line is on the gums, commencing at the tooth margin. Associated with this lead line, in cases of poisoning, will probably be found anemia, loss of appetite, metallic taste, foul breath, and spots before the eyes. Headache is often a prominent feature of lead poisoning. A tendency to nausea, with a sense of weariness, is suggestive.

With lead colic, the pain tends to center at the navel, but may be complained of in the region of the appendix. The patients are very restless and tend to roll about. The pulse is slow, small, and of high tension. Constipation is the rule, and its relief may relieve the colic.

In lead neuritis, the wrist drop is usually preceded by pain or numbness of the muscles of the forearm. It is usually bilateral, but the extent of the involvement on the two sides varies. In lead encephalopathy, epileptiform seizures are the most common manifestation. Workers in lead who give absolutely no signs of lead poisoning may show as much as three parts per million of lead in the urine. This finding, like the lead line, is more confirmatory than diagnostic. A simple test for lead in the urine is that described by von Jaksch: Place a strip of bright magnesium ribbon in about 300 c. c. of urine and add 2 grams of ammonium oxalate. After 2 to 12 hours remove the magnesium strip, wash in distilled water, and dry it. Next warm the strip with a crystal of iodine in a watch glass over a low flame. The formation of the yellow iodide shows that lead has been deposited on the magnesium strip. It will show one part in 50,000 of urine. (Considerable experience with this test is necessary for a proper interpretation of the findings.) A more satisfactory test is to dissolve the magnesium strip with the lead deposit in a very few drops of nitric acid. Then make alkaline with soda solution. Next add acetic acid, drop by drop, until the solution is perfectly clear. Finally add a few drops of a solution of potassium chromate, or bichromate, and note the formation of a yellow precipitate of lead chromate. For the detection of minute quantities of lead, more exact methods are necessary, involving concentration, destruction of organic matter, and electrolysis. Such methods, however, are difficult of application.

As regards the value of punctate basophilia in the diagonsis of lead poisoning, Sir Thomas Oliver considers it of value, but unreliable, he having found the sign negative in 40 per cent of his cases of plumbism. For this test, make a uniform smear on a slide and stain according to the Giemsa or Wright method. Blue dots in the red cells show punctate basophilia. The blue dots in lead poisoning seem larger and more splotchy than those usually observed in secondary anemias for malaria or infection with animal parasites.

Prophylaxis.—Men working in compartments containing lead-laden dust should wear some type of respiratory mask, and care should be taken that they do not become fatigued, a condition which predisposes to lead poisoning. Alcoholics are particularly susceptible to lead poisoning, and in particular to lead encephalopathy. In all forms of employment with lead a full meal should always be taken before commencing work. Thorough washing of hands and face before eating should be insisted upon, as well as during the continuance of work with lead. About five 5-gram tablets may be taken daily. The wearing of gloves during the process of handling, grinding, or mixing lead paints is of great value in preventing poisoning. Clothing that is tight fitting at wrists and neck affords additional protection; cuts and abrasions should be protected until healed. When a workman conplains of symptoms of lead poisoning, he should be directed to report to the surgeon for observation, and should the diagnosis be affirmative he should be removed from further contact with the source of poisoning.

As regards treatment, it should always be borne in mind that potassium iodide should be used with caution in cases of acute poisoning, as lead deposited in the tissues may be redissolved and intensify the existing condition.

f. Injurious effects of duty on submarines: (1) Investigation of air.—The work of the board established for this purpose is partially completed, a preliminary report has been submitted, and the final report is expected in the near future. It is already apparent that this exhaustive investigation will be of great value to the service. (2) The *crews* of these vessels should be carefully selected, far more attention being paid to their physical condition and temperamental make-up. (3) The disposal of *waste* and the *inadequacy of heating* are subjects which require further study.

g. Accidents involving the rescue of personnel from compartments filled with steam or noxious gases: Types of oxygen rescue apparatus have been tentatively studied and it is urged that they be further investigated with a view to obtaining a form adaptable to use on board ship. After rescue, the resuscitation apparatus, previously mentioned, would be of inestimable value.

h. Caisson disease in divers: Since many mild and a few severe cases of this disease have been reported it is urgent that all divers and their assistants be instructed in the method of decompression ascent.

i. Conditions in fire and engine rooms: From the investigation of this subject inaugurated in connection with the speed trials and endurance runs the following conclusions are drawn: (1) The *cubic air space per man* is ample, but the necessity for greater circulation of air is very evident. (2) The *ventilation* is only fair, although it has been markedly improved on certain vessels. (3) The *relative humidity* is high in the engine rooms, but low in the firerooms. (4) Contamination with *noxious gases* other than CO_2 was not observed, but reduction in oxygen was considered marked. (5) The majority of the fireroom force complied with the *physical requirements*, but the standard is too low, the greatest deficiencies having been found among the coal passers. (6) *Heat exhaustion* was not so prevalent as *heat cramps*, but diseased conditions predisposed to both. The quantity of fluid imbibed apparently had no influence upon these conditions, but the number of cases of heat cramps was increased when fluids of low temperature were consumed. The addition of ginger to the drinking water apparently diminished the number of these cases. (7) The temperature of both fire and engine rooms was much lower than that of the adjacent compartments. (8) *Suspension of artificial ventilation*, except for brief periods, would be impossible.

j. Expeditions and landing forces: The recent expeditions of marines and naval landing forces have been accomplished with an exceptionally low morbidity rate, due to the well-directed sanitary measures of the medical officers, the able support rendered them by the officers in command of the various expeditions, and the excellent organization of the hospital corpsmen. One of the most difficult features to cope with has been the proper protection of the large detachments of marines hastily placed upon inadequate transports, with the resulting overcrowding, exposure, and lack of proper living accommodations. Since these sudden and unexpected calls for the transportation of large bodies of men from the naval service must be anticipated, it is imperative that properly equipped vessels of ample proportions be provided in order that the personnel may reach their field of military activity in the most efficient physical condition. The use of *iodine* in military surgery is a distinct advance, and new types of *expeditionary medical and surgical cases* have recently undergone trials with the marines in Cuba.

k. Temperamental fitness: The bureau is engaged in developing methods for determining the temperamental qualifications of officers, midshipmen, and enlisted men, in order that those who are thereby rendered unfit for the service may be weeded out or prevented from entering, if possible. Certain individuals appear physically sound whose temperaments are such that they do not meet the requirements of the Navy, and it is useless to attempt to overcome these shortcomings.

l. General improvements: The sanitary conditions surrounding the civilians employed in the *foundry at the Washington Navy Yard* have been found to be unsatisfactory and steps have been taken to erect a new and modern building. The lack of ventilation existing in the *acid room* at the navy yard, Puget Sound, has been rectified.

D. NAVAL ATHLETICS AND PHYSICAL TRAINING.

A further study of the effects of spectacular athletics on the personnel of the Navy, and particularly on graduates of the Naval Academy, supports my attitude in this important matter as made known to you in previous reports. If, in gunmaking, we found we could employ a process of manufacture which would yield a gun that gave us conspicuous excellence at the first battle practice, but which was followed by signs of undue deterioration afterwards, we would cast aside such a process and seek one that would produce more enduring qualities—one likely to turn out a gun that would give a good account of itself in actual warfare—for which it was really intended.

So it is with the units of personnel that come out of the Naval Academy. If high specialization in athletics at the Naval Academy by a small group of men each year leads to an undue proportion of disability in this "twice-picked" group afterwards, then it is a matter for serious consideration, aside from the tendency of those not athletically inclined to stagnate on the side lines. It is desirable to develop the kind of courage that leads to victory as well as the kind of courage that bears defeat manfully. Service conditions attend to this feature of the development of officers afterwards. The immediate hazards of sport are inconsequential as compared with the future effects of overtraining and overstraining for brief periods, to be followed by years of relative physical quietude. The records naturally fail to take into account those whose physical disabilities are of such a character as not to cause their admission to the sick list, yet whose efficiency has been impaired by them. There are many such officers in the service who consult medical officers for cardiac irregularities, obesity, or physical staleness—in other words, for conditions that it followed by periods of physical quietude exacted by service conditions. These cases do not become matters of record unless they are of such moment as to render the officers wholly unfit for duty, yet such influences in many instances materially affect the military efficiency of the individual and should be averted if possible.

In my opinion professional coaches should not be employed at the Naval Academy. Physical training and athletics should be so tempered as to be beneficial to all. They should produce a supple, agile, all-around well-developed individual, not a muscle-bound mass of brawn. The man who steps out of a boat, comes off the football field, or leaves the track should feel exhilarated by his exercise. Is it logical to suppose that the man who is lifted out of a boat, collapsed, or is carried off a football field or track in the same condition is not harmed thereby? Physical training and athletics should be under the direction of a properly qualified medical officer, who would be able to avert the harmful effects of abused athleticism, and who would be properly qualified to institute exercises beneficial in character. Those who have not been trained in anatomy, physiology, and pathology as well are not qualified to direct these exercises.

In studying naval statistics it must be borne in mind that midshipmen are carefully selected at the outset on the score of their physical makeup; in other words, they are picked men, while the athletic stars, we might say, are twice-selected picked men. They are the men, it would be reasonable to suppose, who would be best able to resist the ill effects of overtraining and overstraining, and who should, other conditions being equal, possess a comparatively greater expectation of health and longevity.

Twenty years ago the mad rush for athletic excellence had not reached its present pace; consequently, as sufficient time has not elapsed, we are not able to say definitely what the future has in store for this group. It might be well for athletic directors to point out to those who aspire to enter the mad race for lowering athletic records the penalty that will be likely to come in later years.

In previous reports to the department, the bureau has given at some length its attitude in regard to this subject. Included in these reports were certain data obtained from an examination of the medical records of 622 star, or specialized, athletes of the classes of 1892 to 1911, inclusive, at the Naval Academy, for the purpose of ascertaining the incidence of certain disabilities or abnormal physical conditions among them. These data and the opinion expressed by the bureau relative to the inadvisability of high specialization in service athletics, particularly at the Naval Academy, have aroused such interest both within and without the service that this examination has been extended to include a similar inquiry into the records of 580 of the nonathletic midshipmen, covering the same period of time. This was undertaken not so much in the expectation that the physiological question involved is susceptible at present of being answered definitely by mathematics alone as in response to a general request for further information. Given an equal number of specialized and nonspecialized athletes recruited from individuals of similar physique, subjected to a continuous system of training through a given period, a comparison of the two groups in reference to their morbidity and mortality would be of marked statistical value.

casualties for the athletes, derived from the examination of 625 records, which shows that, despite the handicap in regard to supposedly better physical material, the casualty list for the athletes about equals that of the nonathletes. Further, it has been found that from those diseases selected to which athletics have a possible or probable causative relation, there has been but 1 death among nonathletes as compared with 6 for the athletic group. The number still in the service whose medical records show the listed abnormal physical conditions is 187 for the nonathletes as against 198 for the athletes. The following conditions or disabilities show an excess amounting to 50 per cent or more among the athletes: Arteriosclerosis, valvular disease of the heart, cardiac irregularity, cardiac dilatation, cardiac hypertrophy, gastric disturbances, albuminuria, general poor health, obesity, and tuberculosis, and various traumatic lesions as well. It seems reasonable to suppose that the disabilities among the athletic class are largely due to spectacular athleticism and would not have been acquired had the overstraining and overtraining not been indulged in.

It is therefore recommended that athletics in the Navy be so regulated as to avoid these deleterious conditions by the prohibition of endurance contests where the ability to win is largely, if not entirely, dependent upon brute force, and that rather the maximum effort be made to develop a symmetrical, normal physique in the many instead of a highly specialized human machine in a few. The adoption of the Swedish system of physical training is earnestly recommended for use not only at the Naval Academy, but throughout the entire service, as its effectiveness has been demonstrated not only at the Naval Academy during the past year, but in the Marine Corps at those stations where it has been employed. This system of physical training leads to a well rounded out development, alertness, and agility, particularly desirable in a naval military organization. Since the system was put into use at the Naval Academy, the previous tendency of the first and second classes of midshipmen to retrograde in strength and weight has not only been checked, but an actual gain has been made. There has also been an improvement in the average weight and strength of the lower classes. These notable advances indicate that the trend of physical training at the academy is in the right direction—i. e., the muscular development of the entire personnel to a higher but rational standard, rather than the production, from material already fit, of a comparatively few specialists, which from a service utilitarian point is useless, if not actually harmful.

SECTION II.—*Operations.*

I. POLICIES.

A. ESTABLISHED.

1. *Educational.*—**a.** Naval Medical School: This institution proves of increasing value to the service, not only in rounding out the practical education of medical officers recently admitted to the corps, but also by performing expert laboratory examinations, by carrying

the peculiar conditions found in the Navy. In addition, a valuable collection of pathological, helminthological, and miscellaneous specimens is being accumulated and classified, and the large library of bound volumes and current literature is being carefully indexed. Only seven assistant surgeons were graduated in April of this year, and there are only seven in the present class, although there are 53 vacancies in the corps (November 15, 1912). It was with regret that the spring course, devoted to the instruction of officers of higher rank, had to be abandoned again, owing to the deplorable shortage and the increasing demands of the service at large.

b. Medical and surgical conferences in the Atlantic Fleet: The conferences of the medical officers of the Atlantic Fleet were an interesting and valuable feature of the winter mobilization at Guantanamo Bay, Cuba. Between January 14 and March 14, 1912, eight meetings were held, with an average attendance of 20 medical officers. A number of valuable and instructive papers were read and discussed, some of which have been published in the Naval Medical Bulletin with a view of making these important matters more generally available.

c. Instruction of medical officers of the Naval Militia: This summer (1912), for the first time in the history of the Navy, a member of the Medical Corps was specially assigned to the duty of instructing medical officers of the Naval Militia in naval customs and methods during their practice cruises. It is the intention to assign a medical officer in the bureau to the additional duty of corresponding with the medical officers of this branch of the service, in order that they may be kept informed of the routine and usages of the corps and to supply them with available literature, so that they may be in closer touch with the regular Naval Establishment and more fully cognizant of their duties in time of war.

d. First-aid instruction of enlisted men by divisional officers: The establishment of this system is a marked advance and the benefit derived therefrom would have been more pronounced had officers fully appreciated its intent and the improved military efficiency which would result. It is reported that in the case of one ship of the battle fleet this drill was not carried out. In order to establish a definite and uniform method, a brief pamphlet on first aid is being prepared for the use of divisional officers. Moving-picture films depicting the actual application of first aid are also in the course of preparation and will prove of great value in furthering this necessary instruction.

e. Training of Hospital Corps men on board ship: Systematic and uniform instruction, beginning on shipboard and continued along more practical lines at hospitals, has been consistently carried out, and the plan has demonstrated its value. It is of particular benefit to hospitals, where the majority of patients need the care of experienced men. In order to bring it to a higher state of efficiency, a text-book for the Hospital Corps of the Navy is to be prepared, and medical officers will be required to make regular reports on the progress of each man.

f. Training of native nurses, Guam: Members of the Navy Nurse Corps are giving instruction to certain Chamorro women who show aptitude, with a view to establishing a corps of trained nurses for the work may be extended.

g. Instruction in hygiene for the rising generation of Chamorros: An elementary course in hygiene and sanitation has been introduced into the curriculum of the common schools of Guam.

h. Medical circulating library: This feature of medical education, established on the hospital ship *Solace*, has proven of great value to the medical officers of the Atlantic Fleet.

i. Open-shelf library: This system has worked admirably on the hospital ship *Solace*, with very trifling losses. It would be a distinct advance if established on all vessels.

2. *Economical.*—**a.** New accounting system for hospitals: This plan has for its object the establishment of a definite and uniform system of accounting, an accurate classification of expenditures, and an authoritative record of current expenses and permanent construction. Certain new forms have been instituted, e. g., bill book, commissary ledger, receipt and expenditure voucher, and ration record, which replace the old order book and all other forms previously used in this connection.

b. New bureau forms and methods: (1) Statistical—(*a*) A sheet form for returns of enlistments and admissions to the service (abolishes Form X card). (*b*) A card form for combining detailed, quarterly statistical reports, relative to diseases and injuries, from individual hospitals, ships, and stations. (*c*) A sheet form for combining all statistical reports by diseases and injuries. (*d*) Graphic statistical charts of all important or prevalent diseases kept up to date. (*e*) A system has been established whereby an accurate record is kept of all sick days resulting both from admissions of naval personnel to hospitals other than naval hospitals, and from sick leave. (*f*) The report of medical survey has been rearranged and simplified.

(2) Records of personnel—(*a*) Medical officers. The Rand adjustable index, a system of loose slips forming panels arranged in book form, has been substituted for the old card index for keeping the temporary record of ever-changing duties and stations. (*b*) Hospital Corps men. In the future the duty of attending to these records will be performed by a medical officer.

c. Naval insane: Hereafter, in appropriate cases, insane patients *during transportation* will be accompanied by a hospital steward and such attendants as may be necessary. Doubtful and obscure cases will be sent to the naval hospitals at Cañacao, P. I., or Washington, D. C., where special *psychopathic wards* have been established for the purpose of treatment and the application of expert diagnostic methods. All cases in which there is good evidence that the disease or a predisposition thereto existed prior to enlistment are surveyed and *discharged from the naval service* soon after their commitment to the Government Hospital for the Insane, Washington, D. C.

d. Abandonment of naval hospitals: (1) Washington, D. C.—By reason of the completion of the new hospital and the uselessness of the old one, the latter was abandoned May 26, 1911. Since that time an effort has been made to sell both building and property, but the necessary legislative authority has not as yet been obtained.

(2) Puget Sound, Wash.—The old building formerly used as naval hospital and yard dispensary was abandoned for hospital purposes February 2, 1912, upon completion of the new hospital.

(3) The naval hospitals at Pensacola, Fla., San Juan, P. R., and Sitka, Alaska, were all abandoned during the year by order of the Navy Department.

e. Inspections of hospitals and of medical departments at navy yards and stations: These inspections, made by the Surgeon General at various times during the year, were of inestimable value in gaining accurate information whereby the affairs of these institutions could be more efficiently directed.

3. *General.*—**a.** Liability act of May 30, 1908: The first aid administered and house visits required under this act have again made great demands upon the medical departments of the navy yards, necessitating the detail of two medical officers to these stations.

b. Division surgeon: The assignments of medical officers to the Atlantic Fleet have been so arranged as to place the senior of each division on the flagship, and, as their duties simulate those of the fleet surgeon, these officers should exercise more active supervision of the affairs of the group of vessels to which they are detailed.

c. Analytical chemical laboratory on hospital ship *Solace:* For the purpose of making chemical examinations of any material submitted, but more particularly for the testing of food supplies for adulterants and preservatives, an elaborately equipped chemical laboratory has been established on the hospital ship *Solace*, with an expert chemist in immediate charge.

d. Marine detachments at naval hospitals: The establishment of this policy has proven most beneficial, and efforts are being made to enhance the comfort of and better the hygienic conditions surrounding the personnel composing these guards.

e. Strong wards in naval hospitals: Most of the hospitals are now fitted with strong wards for the care of court-martial prisoners and mental defectives, and all will be so provided in the near future.

f. Attendance upon families by medical officers: This practice has grown enormously at some stations and is encouraged by the bureau in that it is helpful to medical officers professionally and gives efficient medical and surgical attendance to the families of officers, bringing, as well, the different branches of the service into closer touch with the Medical Corps. There has been a good deal of abuse of this service and a lack of consideration in some instances. The bureau has under consideration the establishment of two wards for women and children, one on the Pacific coast and one on the Atlantic, where the families of officers can be cared for in surgical crises.

g. Outfits on ships in reserve: Formerly the medical outfit of a ship placed in reserve was transferred to another vessel going into full commission. The present arrangement of keeping many vessels in reserve, fully equipped for instant use, renders this plan impracticable, and a heavy expense has been incurred as a result, by reason of the necessity for leaving the outfits on board such ships. This policy, put into effect soon after the establishment of the reserve fleets, has since become mandatory by reason of a recent general order.

h. Entries "not in line of duty" on health records: The regulation requiring that medical officers enter on the health record the stateconscientiously following out this order.

B. INAUGURATED, BUT NOT ESTABLISHED.

1. *Educational.*—Revision of the Instructions for Medical Officers, to be called in the future the Manual for the Medical Department, has been taken up and will be rapidly completed subsequent to the issue of the new Navy Regulations.

2. *Economical.*—**a.** Naval dispensary, Washington, D. C.: The change in location and organization of this dispensary will be completed in the near future, thereby making it more central and convenient and doing away with the necessity for two dispensaries. A large, well suited building, which will be arranged to meet the requirements most satisfactorily, has been selected and will be devoted to this purpose only. The equipment will be modern in every way, and provisions will be made to deal with cases suffering from the special diseases as well as for the large general dispensary practice.

b. New bureau forms and methods: (1) Statistical.—(*a*) The nomenclature of diseases and injuries used in the Navy will in the future conform to the Bellevue Nomenclature. (*b*) A form for the quarterly return of patients on the loose-leaf system will soon replace the former quarterly statistical report. (*c*) A new form for reporting operations has replaced the former report by a much simpler and more valuable return.

(2) Administration of hospitals: More systematic and complete regulations for the internal administration of hospitals have been completed and will be submitted to the department in the near future.

C. CONTEMPLATED.

1. *Educational.*—**a.** Medical and surgical conferences in the Pacific and Asiatic Fleets and at the larger shore stations would prove of great interest and value, and medical officers should actively cooperate in the attainment of this end.

b. Instruction of medical officers: (1) It is urged that medical officers of the Atlantic Fleet be detailed, from time to time, for temporary duty on the hospital ship. Such assignments, lasting about two weeks, would afford valuable opportunity for clinical and laboratory work otherwise unobtainable during a cruise. (2) The success attending the development of the laboratory work, in connection with the course in tropical medicine at the Naval Medical School, has led to a decision to institute practical instruction in physical diagnosis, thus largely replacing the former method of didactic lectures.

c. Laboratory instruction for Hospital Corps: Certain members of the Hospital Corps, selected for special aptitude, are to receive a course in laboratory methods at the Naval Medical School, and they will subsequently continue this work at the large hospitals.

d. Training native nurses, Tutuila, Samoa: A system of training Samoan women for the duties of nurse should be established at Tutuila, similar to that now in existence at Guam, and the assignment of members of the Navy Nurse Corps to this station will make this practicable.

pertaining to health by the introduction of an elementary course in hygiene and sanitation into the curriculum of the common schools of Tutuila, Samoa, should be put into effect.

2. *Economical.*—a. New bureau forms and methods: Revision of the Medical Supply Table.—A thorough revision of the supply table will be undertaken in the near future, and already much preliminary work has been accomplished in the revision of Form B (requisition form) which is based upon this table.

b. Abandonment of naval hospitals: Olongapo, P. I.: By reason of rapid deterioration and excessive expense involved in repairs, it will become necessary to abandon the station hospital (formerly the hospital ship *Relief*) within the next few years.

c. Field tourniquet: This type of tourniquet will not be issued in future. It is difficult of adjustment and, improperly applied, is not only useless, but harmful.

3. *General.*—Embalming of naval dead at sea: Provisions should be made for embalming the bodies of those who die at sea, the procedure being carried out by Hospital Corps men under the guidance of a medical officer. Caskets and other necessary equipment will be provided on the bureau supply table as soon as funds are available to carry this measure into effect.

II. CONSTRUCTION.

All extensive new construction under the Bureau of Medicine and Surgery will be suspended until specific appropriations are provided by act of Congress, as the naval hospital fund is now fully obligated. However, certain new buildings were considered of such immediate necessity that the bureau has undertaken them at once, namely: (1) Temporary heating plants for the preservation of the hospital buildings at Chelsea, Mass., and Newport, R. I.; (2) contagious-disease buildings at the hospitals at Great Lakes, Ill., and Puget Sound, Wash.; (3) stable and garage at the hospital, Great Lakes, Ill. In addition to this work, miscellaneous upkeep and repairs and minor improvements at various hospitals are to be undertaken at an expense of approximately $106,000, all to be drawn from the naval hospital fund.

A. COMPLETED.

1. *Hospitals* (*main building only*).—a. Great Lakes, Ill.: A modified type hospital with integral parts abutting upon the administration building, instead of being connected with it by corridors, has been built in connection with the Great Lakes Training Station, and was occupied October 2, 1911. It consists of an administration building, operating and subsistence building, and two wings for wards, and has a normal capacity of 89 beds. It was constructed under the following contracts: (1) Building—with Noel Construction Co., dated June 11, 1909, for $231,400 (naval acts of May 13, 1908, and June 24, 1910). (2) Heating system and electric conduits—with D'Olier Construction Co., dated July 19 and September 21, 1909, for $43,242 (naval hospital fund). (3) Roads and roadways—with James Cape & Sons, dated August 7, 1910, for $20,787 (naval hospital fund).

b. Puget Sound, Wash.: This hospital, occupied January 3, 1912, although ultimately to conform to the plans of the type hospital, at present consists only of an administration building, operating and subsistence building, and one wing for wards, with a normal capacity of 63 beds. It was built under contract with the W. N. Concannon Co., dated March 29, 1909, for $149,820 (naval acts of Mar. 7, 1907, and May 13, 1908).

2. *Dispensaries and sick quarters.*[1]—Naval station, Tutuila, Samoa: The dispensary at this station was occupied in August, 1911, but the volume of work has so increased that an addition is necessary. The present structure consists of a main building (ward, dispensary, laboratory, surgeon's office, and Hospital Corps quarters), a subsistence building, an operating building, and toilet building, and has a normal capacity of 12 beds.

3. *Contagious disease buildings.*—Hospital, Brooklyn, N. Y.: Provision for contagious diseases was made by the conversion of a building formerly occupied as quarters by the medical officer in command of the medical supply depot. It consists of isolation space for four different contagious diseases and rooms for hospital corpsmen in attendance; also, through necessity, quarters for three members of the Nurse Corps. Its normal capacity is about 30 beds.

4. *Quarters (separate buildings).*—**a.** For medical officers, Great Lakes Hospital, Ill.: There were three buildings erected for this purpose, one for the commanding officer and two for junior officers. These quarters and the "laundry and disinfecting building," mentioned under "5. Other accessory buildings" of "Completed construction," were built by the contract dated June 11, 1909, at a contract cost of $79,000 (naval hospital fund).

b. For Nurse Corps, Brooklyn Hospital, N. Y.: These quarters are the result of remodeling and enlarging the building formerly used as a contagious disease building, and contain accommodations for 10 nurses.

5. *Other accessory buildings.*—**a.** Laundry and disinfecting building, Great Lakes Hospital, Ill. (See "**4.** Quarters.—**a.** For medical officers" above.)

b. A *mortuary* and a *building for the high-pressure steam disinfector* have been recently completed at the hospital, Brooklyn, N. Y.

c. An ice house, two 3-room cottages, a stone hose-cart house, a stone house over the power-house well, and a new sputum and dressing incinerator have been erected at the hospital, Las Animas, Colo.

6. *Improvements.*—**a.** Additions: (1) Laboratory facilities.—A bacteriological room has been equipped at the dispensary, navy yard, Boston, Mass. A satisfactory animal house has been constructed at the dispensary, Olongapo, P. I., while that at the hospital, Guam, has been extended.

(2) Eye, ear, nose, and throat rooms.—Dark rooms for use in connection with work in these specialties have been provided at the dispensary, navy yard, Boston, Mass., and at the hospital, Guam.

b. General: Electric lights have been introduced into the hospital, Guam, and extensive repairs, the result of unusually heavy storms, have been completed at the dispensary, navy yard, Charleston, S. C., and at the hospital, Yokohama, Japan. A handsome bridge spanning the ravine between the hospital and training station at Great Lakes, Ill., has been completed.

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[1] Appropriation under Bureau of Yards and Docks.

B. UNDERTAKEN, BUT NOT COMPLETED.

1. *Hospitals (main building only)*.—a. New England hospitals: These three type hospitals, located at Portsmouth, N. H., Chelsea, Mass., and Newport, R. I., each consisting of an administration building, solarium, operating and subsistence building, and two wings for wards, and having a normal capacity of 134 beds, are about 96 per cent completed. All three structures are being built by the Noel Construction Co., under one contract dated January 19, 1910, at a primary contract cost of $847,100 (naval hospital fund). The date of occupancy of these hospitals can not be definitely set, as it is impracticable to furnish and equip them and to erect adequate heating plants at Chelsea and Newport, owing to lack of funds. Temporary heating plants will be installed at these two hospitals for the purpose of preserving the buildings; that at Portsmouth will receive its power and heat from the naval station.

b. Pearl Harbor, Hawaii: This building is to be a type hospital, modified for the Tropics, and for the present will consist of an administration building, subsistence building, operating building, laboratory building, and one wing for wards, and will have a normal capacity of 89 beds. A most favorable site has been selected, the plans and specifications have been completed and approved, and the work will be done under contract, the funds being drawn from the $300,000 authorized by Congress (naval act of Mar. 4, 1911) for use in the construction of this main building and certain accessory buildings.

2. *Dispensaries and sick quarters.*[1]—a. Navy yard, New York: Remodeling of and additions to the old dispensary will be completed in the near future.

b. Naval station, Tutuila, Samoa: An additional building for dispensary purposes has been found necessary and a site has been selected, plans and specfications completed and approved, and material shipped from the United States. It will consist of a laboratory, examining and dressing rooms, and dentist's office.

3. *Contagious disease buildings.*—The urgent necessity for the immediate establishment of provisions for handling diseases of this class at the hospitals at Great Lakes, Ill., and Puget Sound, Wash., has determined the allotment of $10,000 from the naval hospital fund for this purpose. Ultimately they will each consist of an administration building and five wards, each ward to have a normal capacity of 20 beds, but only the administration building and three wards will be erected during the coming year. At both hospitals sites have been selected, and the plans and specifications (common to both) have been completed and approved. A permanent camp for contagious diseases is being built at Caracoles Point, Guantanamo Bay, Cuba, for the use of the Atlantic Fleet during its periods of concentration in that bay.

4. *Quarters (separate buildings).*—The only quarters that may be included under this section are those for the hospital at Pearl Harbor, Hawaii, consisting of 11 buildings—1 each for the commanding officer, pharmacist, members of the Hospital Corps and members of the Nurse

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[1] Appropriation under Bureau of Yards and Docks.

Corps, 3 for junior medical officers, and 4 for civilian employees. The cost of all will be defrayed from the sum referred to under the naval hospital, Pearl Harbor, Hawaii. (B. 1. b.)

5. *Other accessory buildings.*—**a.** A *stable and garage*, a *mortuary*, and a *laundry building* are to be constructed at the hospital at Pearl Harbor, Hawaii, the cost to be defrayed from the $300,000 authorized by Congress for the hospital at that place. The *stable and garage* for the hospital at Great Lakes, Ill., has been decided upon and the work of construction has commenced.

b. The site for the *operating building* at the hospital, Guam, has been selected, the plans and specifications have been completed and approved, and material has been shipped from the United States. This building will consist of operating, sterilizing, etherizing, and dressing rooms on the upper floor and offices on the lower floor.

6. *Improvements.*—**a.** Additions: A third *diet kitchen* is being equipped at the hospital, Brooklyn, N. Y.

b. General: An incinerator and disinfector are being installed at the hospital, Mare Island, Cal.

C. CONTEMPLATED.

1. *Hospitals* (main buildings only).—**a.** Urgent: Puget Sound, Wash.: The addition of the east wing to the hospital at this station is a necessity.

b. Advisable: Olongapo, P. I.: The construction of a new hospital will be necessary in the next few years, as the present hospital (formerly the hospital ship *Relief*) is rapidly deteriorating. Should this station be developed in size and importance, the need for a large hospital would become imperative.

2. *Dispensaries and sick quarters.*[1]—There is pressing need for new dispensary buildings at Philadelphia, Pa., Fort Mifflin, Pa., Puget Sound, Wash., and Olongapo, P. I.

3. *Contagious-disease buildings.*—**a.** Urgent: Isolated structures for the care of contagious cases are needed at the hospitals at Portsmouth, N. H., and Pearl Harbor, Hawaii.

b. Advisable: The hospitals at Newport, R. I., and Norfolk, Va., should be provided with proper facilities for handling these cases.

4. *Quarters (separate buildings).*—**a.** For medical officers: There is urgent need for quarters at the hospitals at Portsmouth, N. H., Newport, R. I., and Puget Sound, Wash., and a building for the commanding officer and two for junior officers should be erected at each place. In addition to these, one house for three junior officers should be built at the Norfolk Hospital.

b. For Hospital Corps: Quarters for the members of this corps on duty at Guam, are advisable.

c. For Nurse Corps: Owing to their isolated position, it appears advisable to erect quarters for the members of this corps on duty at the Las Animas and Puget Sound hospitals.

5. *Other accessory buildings.*—**a.** Stable and garage: Buildings for this purpose are urgently needed at the Norfolk and Puget Sound Hospitals, and their construction at the Portsmouth and Newport Hospitals appears advisable.

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[1] Appropriation under Bureau of Yards and Docks.

b. Heating plants: The installation of adequate heating plants at the hospitals at Chelsea and Newport is imperative before these buildings can be occupied, and it is planned to include the laundry in the same building in each case. The Mare Island Hospital is in immediate need of a heating plant, and it is contemplated to include in this structure an extension of the present kitchen and a room for convalescent patients.

6. *Improvements.*—a. Additions: An increase in the capacity of the *store room* at the medical supply depot, Mare Island, Cal., and a *remodeling of the dispensary building* at Charleston, S. C.,[1] are urgently needed.

b. General: The construction of proper *roadways* at the hospitals at Portsmouth, Chelsea, and Newport prior to their occupancy will be necessary, and an extension of those at the Washington Hospital is much needed. At the Puget Sound Hospital it is of the utmost importance that the grounds be graded and that drains, sewers, and water mains be properly laid.

SECTION III.—*Estimates.*

While no estimates have been directly submitted by this bureau for public works, recommendations have been made that the department authorize the Bureau of Yards and Docks to include in its estimates of appropriations for the fiscal year 1914 provisions for public works under this bureau's cognizance.

Under the appropriation "Medical Department" an estimate has been submitted for $510,000, an increase of $50,000 over 1912, with which fiscal year the estimate is in comparison by direction of section 6 of the sundry civil act approved August 24, 1912. Of this increase $30,000 is to meet additional expenses incident to the increase of 4,400 enlisted men of the Navy and Marine Corps authorized by the naval act for the fiscal year 1913, and $20,000 is for the purchase of original medical outfits for vessels which will be placed in first commission during the year.

Under the appropriation "Contingent, Medicine and Surgery," an estimate has been submitted for $142,000, an increase of $45,000 over 1913, of which $7,000 is to meet additional expenses of the increased personnel referred to in the preceding paragraph, $8,000 is for original dental outfits, and $30,000 for dental material other than outfits, required for the use of the Dental Corps authorized by the naval act approved August 22, 1912.

Under the appropriation "Bringing home remains of officers, etc., Navy Department," an increase of $2,000 is recommended. This appropriation is for the purely beneficent purpose of restoring to the bereaved families the bodies of their dead, and the increase is necessary in order that all cases may receive the same favorable treatment at the hands of Government.

The several estimates submitted as briefly outlined above are based upon the present authorized personnel of the Navy; should that be further increased by the act for the fiscal year 1914, corresponding increases would be necessary in each appropriation.

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[1] Appropriation under Bureau of Yards and Docks.

1. *General remarks.*—From July 1, 1911, to July 1, 1912, there were 7 medical officers admitted to the corps, while during that same period 10 were lost by reason of deaths, resignations, retirements, and being dropped; as a result, the actual strength of the corps on July 1, 1912, was 302 (including two extra numbers), and the number of vacancies was therefore 45.[1]

The Medical Corps has not expanded numerically in proportion to its enlarged responsibilities, for the authorized increase since 1882 of the naval personnel as a whole has been more than five times as great as in the Medical Corps, the percentages being, respectively, 514.5 and 102.3. Moreover, owing in part to conditions remediable by legislative action, there are now 45 vacancies in the regular corps, and the crippling effect of this shortage is constantly felt in endeavoring to meet the ordinary demands of the service. This has been more apparent during the fiscal year 1912 than heretofore, owing to the unusually high morbidity rate for that period (amounting to 362.45 per thousand, with a total of 2,694 sick days), 36 per cent of the corps having been retired by reason of ill health or on the sick list for varying lengths of time. It has been necessary during the year to leave most of the battleships and armored cruisers with but one medical officer, and acting assistant surgeons have been ordered to navy recruiting stations to replace those of the regular corps needed elsewhere. The requirement of one year's hospital experience has resulted in a higher grade of candidate, as shown by the fact that in the two years prior to the inauguration of this plan, 93 candidates took the examination and 38 failed professionally, a percentage of failure of 40.8; whereas, in the two years subsequent to the establishment of the rule, 57 candidates have taken the examination and 16 have failed, a percentage of failure of 28. The subjects of literature, history, and the natural sciences have been eliminated from the examination of assistant surgeons for promotion to the grade of passed assistant surgeon. In January, 1912, a medical officer was sent to Chicago, Ill., to act as president of a special examining board, and addresses have been delivered by the Surgeon General before the graduating classes of several large medical schools, hospitals, and societies upon the newer activities of the Medical Corps.

There is still a widespread impression throughout the medical profession that the Medical Corps of the Navy has not received the recognition in the way of rank and promotion which its activities deserve. It is believed that if the personnel bill which has been advocated by the department were enacted into law, with a clause providing for flag rank in the Medical Corps, that this attitude of the profession would be greatly modified and that there would thereafter be no difficulty in obtaining a sufficient number of qualified candidates to fill the corps.

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[1] On November 15, 1912, the number of vacancies was 53.

magnitude at hospitals, reflecting great credit on individual operators and the general administration of the hospitals. The benefits derived from the increased activities and the broader scope of work of the Medical Corps have become evident, particularly in promoting military efficiency.

Research work bearing upon special conditions and diseases in Guam and Cavite, P. I., has been carried on with gratifying results. A representative of the corps has recently returned from the Southern States where he has been engaged in the study of pellagra, under the Robert M. Thompson fund, placed with the New York Postgraduate Medical School and Hospital. From time to time, upon invitation, medical officers have represented the Navy Department at various society meetings, conferences, and conventions, both in the United States and abroad. Many such invitations were of necessity not accepted, owing principally to shortage in the corps. International aid in time of war (or disaster) was rendered in China during the recent revolution.

Several officers, at their own expense, have devoted their leave to special studies (eye, ear, nose and throat, surgery, and chemistry) both at home and abroad, with marked benefit to the service, and so far as practicable such officers have been assigned to duty giving them opportunities to practice their specialty. The work of members of the corps, as health officers of island ports and municipalities, has been active and resulted in great good.

II. MEDICAL RESERVE CORPS.

The legislation passed by the last Congress, whereby a Naval Medical Reserve Corps was established, will have a far-reaching influence upon the efficiency of the Navy. The benefit resulting from both military and humanitarian standpoints will be inestimable, as trained men of high standing will be available to bring the number of medical officers up to a proper percentage of the entire naval personnel.

In time of peace members of this corps will be placed upon active duty in sufficient numbers to allow of a full quota of medical officers of the regular service at hospitals and stations and on board ship, a condition which has not been possible for some time in the past. In time of war one of the greatest advantages resulting will be the practicability of establishing a perfectly organized, rapid, and humane method of evacuation of and caring for the wounded from fleets after an engagement.

III. DENTAL CORPS.

The advantages which will accrue from the establishment of a corps of trained dentists are well recognized, and the recently passed law establishing such a corps upon a firm foundation is most gratifying. It will now be possible to provide the personnel of the Navy with this type of professional service at the hands of graduate dentists of approved worth and in sufficient numbers.

The members of the Hospital Corps, who have been faithfully and satisfactorily performing this duty and who fulfill the requirements specified in the law, will be given an opportunity to take the examination for the new corps, and if successful will receive commissions, while those failing to qualify for the higher position will be allowed to continue their special work as assistants to the commissioned dental surgeon.

The wording of the present law which permits the appointment of dentists to the Medical Reserve Corps for the practice of their specialty is regrettable and places those dentists who enter it in an anomalous position. The bureau feels that the establishment of a separate dental reserve corps would be to the interest of the service for reasons similar to those advanced in behalf of the Medical Reserve Corps, but the law as enacted might give rise to unforeseen and untoward complications and its modification is eminently desirable.

IV. HOSPITAL CORPS.

1. *Pharmacists.*—The enactment of legislation establishing the grade of chief pharmacist is most opportune and will redound to the benefit of the service by increasing the prestige of this corps and stimulating enlistments in the lower grades. The assignment of pharmacists to duty in connection with the commissary departments of hospitals is now a thoroughly established policy and proves more and more satisfactory. One pharmacist retired during the past year and examinations have been held to fill this vacancy and those created by the establishment of the grade of chief pharmacist from the hospital stewards who were eligible.

2. *Enlisted men.*—The established allowance of hospital corpsmen (3 per cent of the Navy personnel) is ample, but it has been impossible to recruit this number, there being at present 400 vacancies. The number of reenlistments, based upon an average strength of 1,200 men, was only 12 per cent during the past year. This is due, as has been fully explained before, to the fact that there is no graded promotion in this corps as there is in every other branch of the enlisted personnel. By suspending enlistments from civil life in the rating of hospital steward, and filling vacancies from the rating of hospital apprentice, first class, and by filling all vacancies occurring in the grade of pharmacist from the rating of hospital steward, the bureau has been able to increase the attractiveness as well as the efficiency of the corps to a slight extent, and the establishment of the grade of chief pharmacist will produce a beneficial result. If the system of progressive ratings corresponding to those of other branches of the service were inaugurated in the Hospital Corps, a great injustice would be corrected and there would be no difficulty in recruiting it to its full allowance, and the bureau urges that this be done.

The number of hospital corpsmen engaged upon dental duty has been steadily increasing, thus replacing the civilian dentists at various stations and providing others which heretofore have been without this necessary professional attention. The hospital stewards in charge of the medical department on the various torpedo-boat destroyers have discharged their responsible duties admirably.

The work of this corps has been unqualifiedly excellent, and their influence for betterment of conditions surrounding the sick in naval hospitals has been realized and appreciated throughout the service. A definite, systematic method of work and instruction has been established at all hospitals, thus enabling nurses to readily adapt themselves to the new duties when transferred from one hospital to another. Special work has been done in operating rooms, laboratories, and diet kitchens, and a number of the corps are particularly skilled in massage, while still others are well qualified in the management of the X-ray apparatus, both for photographic and therapeutic purposes. During the year July, 1911, to July, 1912, 55 new members were appointed, the corps numbering 110 on July 1, 1912, 25 of the original 32 having entered upon their second term of three years. Two additional hospitals, namely, those at Guam, and Chelsea, Mass., have been provided with members of this corps, and the number at several other hospitals has been increased. The appointment of chief nurse should be regarded as a permanent one, unless revoked for good cause, and those holding such appointment should not be reduced to the grade of nurse while on leave with pay or when traveling under orders, and, further, sick leave, when indicated, should be granted by the Surgeon General.

SECTION V.—*Recommendations.*

A. RELATIVE TO HYGIENE AND SANITATION AND THE CARE OF THE SICK.

1. The detail of a properly qualified medical officer as inspector general of the Medical Department, to serve under the aid for inspections.
2. Erection of sanitary barracks, provided with means for recreation, at navy yards, for the accommodation of the crews of ships undergoing extensive repairs.
3. Substitution of a sanitary unit system of barracks for receiving ships.
4. The appointment of a board for the study of the subject of clothing and uniforms, and that a representative of the Medical Corps be assigned to this duty for the purpose of discussing the hygienic features of the question.
5. The appointment of a board for the study of the subject of illumination on board ship and elsewhere, and that a representative of the Medical Corps be assigned to this duty for the purpose of discussing the hygienic features of the question.
6. The appointment of a board for the study of crews' heads, and that a representative of the Medical Corps be assigned to this duty for the purpose of discussing the sanitary features of the subject.
7. Abolition of prison ships.
8. That the tours of duty of ships in Central American waters be shortened.
9. That the station ship at Tutuila, Samoa, make periodic trips to Australia or New Zealand.
10. That no city harbor water be used for cleaning purposes.

11. That all staterooms on board ship be thoroughly cleaned and disinfected before the successor takes possession.

12. Prohibit purchasing or contracting for undressed cold-storage poultry.

13. Issue overcoats to prisoners released during the winter season in cold climates.

14. Require *all* persons on board ship to participate in the physical drills once daily.

15. Officers to take exercise in the open air amounting to 5 hours a week and to select their own mode of taking such exercise, certifying to its completion at regular intervals.

16. Raise the physical standard for firemen and coal passers and make no transfers to these ratings from other ratings unless this standard is complied with.

17. Provide a cruising parent ship for the Pacific Torpedo Fleet.

18. Restriction or professional services rendered to families of officers and men by members of the Medical Corps.

19. Forfeiture of pay of all persons in the service during disability from disease of venereal origin, such forfeiture to be credited to the Naval Hospital Fund.

20. That those exposed to the damaging effects of gun blasts and ear injuries incident to aviation be required to wear ear protectors.

21. That the present system of drills be modified to provide longer relaxation periods.

B. RELATIVE TO BATTLE CONDITIONS AND HANDLING OF THE WOUNDED.

1. Construction, on accepted plans, of a hospital ship for each fleet.

2. Compulsory use of identification tags during battle practice and in action.

3. Provide permanent stretcher bearers on board ship equivalent in number to 2 per cent of the personnel.

4. Provide vessels, properly equipped as transports, for the conveyance of expeditionary forces.

C. GENERAL.

1. Amalgamation of the Medical Corps of the Navy with the Line of the Navy.

2. Assignment of medical officers of the fleet to brief periods of duty on the hospital ship.

3. That steps be taken toward the ultimate abandonment of Las Animas as a naval hospital.

4. Provision of Government quarters for all officers at Guam, Mariana Islands.

C. F. STOKES.

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I. DISEASES AND INJURIES.

Table No. 1.—*General view of the effects of diseases and injuries on the Navy and Marine Corps during the year 1911.*

Item.	Number.[1]				Ratio per 1,000 of average strength.
	Force afloat.	Stations and yards.	Hospitals	Entire service.	
Average strength of the Navy and Marine Corps, 1911	42,911	6,702		61,399	....
Admissions for diseases, 1911	17,306	12,569	2,017	31,892	519.42
Readmissions for diseases, 1911	1,855	1,487	9,018	12,360	201.30
Admissions and readmissions for diseases:					
For the year 1911	19,161	14,056	11,035	44,252	720.72
For the year 1910	20,463	13,455	8,065	41,983	719.62
Average for 10 years (1901-1910)	17,615	9,260	6,659	33,534	771.74
Admissions for injuries, 1911	3,504	1,597	201	5,302	86.35
Readmissions for injuries, 1911	135	121	1,150	1,406	22.89
Admissions and readmissions for injuries:					
For the year 1911	3,639	1,718	1,351	6,708	109.25
For the year 1910	3,982	1,706	1,124	6,812	116.76
Average for 10 years (1901-1910)	3,453	1,273	733	5,459	125.63
Admissions for all causes, 1911	20,810	14,166	2,218	37,194	605.77
Readmissions for all causes, 1911	1,990	1,608	10,168	13,766	224.20
Admissions and readmissions for all causes:					
For the year 1911	22,800	15,774	12,386	50,960	829.98
For the year 1910	24,445	15,161	9,180	48,795	836.38
Average for 10 years (1901-1910)	21,069	10,532	7,391	38,992	897.35
Invalided from the service for diseases:					
For the year 1911	38	377	738	1,153	18.77
For the year 1910	35	452	703	1,190	20.40
Average for 10 years (1901-1910)	132	264	723	1,119	25.75
Invalided from the service for injuries:					
For the year 1911	6	84	130	220	3.58
For the year 1910	6	93	129	228	3.91
Average for 10 years (1901-1910)	28	76	119	223	5.13
Invalided from the service for all causes:					
For the year 1911	44	461	868	1,373	22.36
For the year 1910	41	545	832	1,418	28.95
Average for 10 years (1901-1910)	159	340	842	1,341	30.86
Deaths from diseases:					
For the year 1911	25	20	85	130	2.11
For the year 1910	31	24	102	157	2.73
Average for 10 years (1901-1910)	29	19	88	136	3.12
Deaths from injuries:					
For the year 1911	67	37	19	123	2.00
For the year 1910	94	31	12	137	2.93
Average for 10 years (1901-1910)	64	23	11	98	2.25
Deaths from all causes:					
For the year 1911	92	57	104	253	4.12
For the year 1910	125	55	114	294	5.66
Average for 10 years (1901-1910)	93	42	99	234	5.38
Total sick days due to diseases, 1911	98,434	71,548	345,753	516,735	8,416.01
Total sick days due to injuries, 1911	27,433	12,117	49,778	89,328	1,454.87
Total sick days for all causes:					
For the year 1911	125,867	83,665	395,531	605,063	9,854.60
For the year 1910	131,827	78,541	349,590	559,958	9,508.18
Average for 10 years (1901-1910)	134,863	60,278	277,231	472,372	10,871.12
Average days per individual of average complement:					
For the year 1911	....	....	....	9.85	....
For the year 1910	....	....	....	9.50	....
Average for 10 years (1901-1910)	....	....	....	10.87	....
Average days for each case treated:					
For the year 1911	....	....	....	11.54	....
For the year 1910	....	....	....	11.47	....
Average for 10 years (1901-1910)	....	....	....	11.76	....
Total damage in percentage of sick for diseases:					
For the year 1911	....	....	....	3.34	....
For the year 1910	....	....	....	3.65	....
Average for 10 years (1901-1910)	....	....	....	3.99	....
Total damage in percentage of sick for injuries:					
For the year 1911	....	....	....	.67	....
For the year 1910	....	....	....	.77	....
Average for 10 years (1901-1910)	....	....	....	.79	....
Total damage in percentage of sick for all causes:					
For the year 1911	....	....	....	4.01	....
For the year 1910	....	....	....	4.43	....
Average for 10 years (1901-1910)	....	....	....	4.78	....

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[1] Does not include the Naval Sanatorium for Tuberculosis at Las Animas, Colo., and hospitals for insane, except "Average strength of Navy and Marine Corps," which includes the entire personnel of the service.

Table No. 2.—*Ships and stations—Effects of diseases and injuries during the year 1911.*

ATLANTIC STATION.

Name of ship.	Number of days in service this year.	Average complement corrected for time.	Admissions and readmissions.			Ratio per 1,000.	Sick days.	Daily average of patients.	Ratio per 1,000 of force sick daily.	Transferred to hospital.	Deaths.	Invalided from services.	Admissions for primary venereal diseases.	
			Disease.	Injury.	Total.								No. of cases.	Ratio per 1,000.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ammen	223	48	21	3	24	500.00	55	0.24	5.00	13	....	....	8	166.66
Amphitrite	365	27	37	2	39	1,444.44	341	.93	34.44	1	3	....	3	111.11
Birmingham	365	267	115	11	126	471.90	1,035	2.83	10.59	62	2	....	23	86.14
Burrows	314	72	33	5	38	527.77	113	.35	4.86	15	....	....	15	208.33
Castine	365	313	132	43	175	559.10	887	2.43	7.76	66	....	....	48	153.35
Celtic	365	145	91	6	97	668.96	358	.98	6.75	37	1	....	35	241.37
Chester	365	358	158	23	181	505.58	1,465	4.01	11.20	46	1	....	51	142.45
Chicago	365	40	17	4	21	525.00	54	.14	3.50	11	1	....	3	75.00
Connecticut	365	925	360	61	421	455.13	2,216	6.07	6.56	88	2	....	123	132.97
Culgoa	365	142	102	31	133	936.61	646	1.76	12.39	43	....	....	22	154.92
Delaware	365	878	871	213	1,084	1,234.62	6,038	16.54	18.83	194	9	1	184	209.56
Des Moines	365	268	218	46	264	985.07	1,220	3.34	12.46	48	2	2	51	178.32
Dixie	365	278	162	51	213	766.18	1,006	2.75	9.89	41	....	....	35	125.89
Dolphin	365	166	96	24	120	722.89	320	.87	5.24	41	1	....	40	240.96
Drayton	365	83	38	7	45	542.16	119	.32	3.85	16	....	....	15	180.72
Dubuque	203	87	67	5	72	827.58	266	1.31	15.05	18	1	....	16	183.90
Eagle	365	65	38	5	43	661.53	150	.41	6.30	8	....	....	12	184.61
Fish Hawk	365	34	19	5	24	705.88	108	.29	8.52	8	....	....	8	235.29
Florida	108	206	131	32	163	791.26	596	5.51	26.74	6	....	....	65	315.53
Flusser	365	82	38	5	43	524.39	238	.65	7.92	15	....	....	17	207.31
Georgia	365	868	485	163	648	746.54	2,931	8.03	9.25	72	....	3	84	96.77
Hist	205	39	30	15	45	1,153.84	193	.94	24.10	2	....	....	10	256.41
Idaho	365	759	328	58	386	508.56	1,944	5.32	7.00	51	2	....	162	213.43
Indiana	365	373	279	42	321	422.92	1,116	3.05	4.01	51	....	2	93	222.52
Iowa	365	381	303	21	324	850.39	1,712	4.69	12.30	58	....	1	106	278.21
Kansas	365	925	342	58	400	432.43	2,229	6.10	6.59	88	1	1	114	123.24
Lamson	365	79	44	6	50	632.91	419	1.14	14.43	15	....	....	19	240.50
Lebanon	365	51	32	7	39	764.70	128	.35	6.86	10	....	....	14	274.51
Louisiana	365	968	584	73	657	678.71	3,947	10.81	11.16	68	1	....	154	159.09
Maine	200	374	200	59	259	692.51	1,616	8.08	21.60	41	1	....	58	155.08
Marietta	365	160	124	16	140	875.00	716	1.96	12.25	22	1	....	15	93.75
Massachusetts	365	286	234	23	257	89.86	1,192	3.26	11.39	51	....	....	95	332.16
Mayflower	365	174	73	15	88	505.74	291	.79	4.54	40	1	1	17	97.70
Mayrant	173	38	12	5	17	447.36	72	.41	10.78	8	....	....	6	157.89
McCall	343	77	34	4	38	493.50	116	.33	4.28	12	....	....	19	246.75
Michigan	365	752	489	176	665	884.30	4,222	11.55	15.35	85	1	....	109	144.94
Minnesota	365	920	456	55	511	555.43	1,741	4.76	5.17	124	1	2	169	183.69
Mississippi	365	723	367	49	416	575.38	2,617	7.16	9.90	40	1	6	106	146.61
Missouri	365	568	334	43	377	663.73	1,798	4.92	8.66	95	....	....	142	250.00
Monaghan	194	42	25	1	26	619.04	48	.24	5.71	17	....	....	10	238.09
Montana	365	631	200	45	245	388.27	1,581	4.33	6.86	50	2	....	73	115.68
Montgomery	365	146	73	14	87	595.89	320	.87	5.95	36	....	....	10	268.49
Nashville	161	70	54	10	64	914.28	218	1.35	19.28	15	....	2	14	100.00
Nebraska	365	840	621	110	731	870.23	4,228	11.58	13.78	159	2	2	164	195.23
New Hampshire	365	915	435	95	530	579.23	3,141	8.60	9.39	75	3	....	122	233.33
New Jersey	365	491	348	29	377	767.82	2,198	6.00	12.21	73	2	1	123	50.50
North Carolina	365	913	288	66	354	387.73	2,402	6.58	7.20	78	....	....	70	76.67
North Dakota	365	901	340	80	420	466.14	2,818	7.72	8.56	142	1	2	90	99.88
Ohio	214	434	189	39	228	525.34	1,070	5.00	11.52	61	3	....	73	168.20
Paducah	365	165	131	23	154	933.33	928	2.54	15.39	16	1	....	23	139.39
Panther	365	186	141	40	181	973.11	905	2.47	13.27	39	....	1	20	107.52
Patterson	82	17	9	4	13	764.70	18	.21	12.35	8	....	....	2	24.39
Paulding	365	87	24	2	26	298.85	159	.43	4.94	11	....	....	13	156.32
Perkins	365	77	48	3	51	662.33	102	.27	3.50	26	1	....	27	363.63
Petrel	365	124	145	24	169	1,362.90	762	2.08	16.77	18	2	....	49	395.16
Prairie	365	205	122	20	142	692.68	1,285	3.52	17.17	21	....	1	35	170.73
Preston	365	85	50	5	55	647.05	233	.63	7.41	23	....	....	19	223.52
Reid	365	83	51	4	55	662.65	235	.64	7.71	13	....	....	26	313.25
Rhode Island	365	672	336	48	384	571.42	2,350	6.43	9.56	78	1	....	101	150.29
Roe	365	81	53	8	61	753.08	398	1.09	13.45	28	....	....	28	345.67
Salem	365	358	201	80	281	784.91	2,103	5.76	16.08	26	1	2	37	103.35
San Francisco	133	50	26	8	34	680.00	146	1.09	21.80	9	....	....	14	280.00
Scorpion	365	76	64	1	65	855.26	384	1.05	13.81	2	1	....	24	315.78
Smith	365	84	31	7	38	452.38	208	.56	6.66	19	....	....	14	166.66
South Carolina	365	766	486	46	532	694.51	3,211	8.79	11.47	50	1	1	174	227.15
Sterett	365	82	45	5	50	609.75	71	.19	2.31	26	....	....	30	365.85
Tacoma	365	176	107	6	113	642.04	780	2.13	12.10	18	2	1	31	176.13

TABLE No. 2.—*Ships and stations—Effects of diseases and injuries during the year 1911*—Continued.

ATLANTIC STATION—Continued.

Name of ship.	Number of days in service this year.	Average complement corrected for time.	Admissions and readmissions.			Ratio per 1,000.	Sick days.	Daily average of patients.	Ratio per 1,000 of force sick daily.	Transferred to hospital.	Deaths.	Invalided from services.	Admissions for primary venereal diseases.	
			Disease.	Injury.	Total.								No. of cases.	Ratio per 1,000.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Tallahassee	365	65	46	9	55	846.15	258	.70	10.76	25	1	....	22	338.46
Tennessee	365	599	183	50	233	388.98	1,203	3.29	5.49	56	3	....	68	111.85
Terry	365	80	22	7	29	362.50	91	.24	3.00	20	....	....	5	62.50
Torpedo Fleet (reserve)	365	322	171	48	219	680.12	513	1.40	4.34	67	2	....	54	167.70
Trippe	284	62	41	6	47	758.06	234	.82	13.22	26	....	....	17	274.19
Utah	123	283	243	56	299	1,056.53	1,413	11.48	40.56	27	....	1	48	169.61
Vermont	365	901	341	126	467	518.31	3,601	9.86	10.94	25	1	1	105	116.53
Virginia	365	838	289	55	344	410.50	2,160	5.91	7.05	115	2	....	68	81.14
Walke	163	37	18	5	23	621.62	56	.34	9.18	11	....	....	8	216.21
Warrington	287	64	26	7	33	515.62	98	.34	5.31	14	....	....	11	171.87
Washington	365	925	460	87	547	591.99	3,197	8.75	9.46	118	....	1	113	122.16
Wheeling	365	155	73	10	83	535.48	389	1.06	6.83	8	1	....	27	174.19
Wisconsin	365	219	187	42	229	1,045.66	1,344	3.68	16.80	35	1	3	45	205.47
Wolverine	365	31	31	6	37	1,225.80	227	.62	20.00	4	....	....	2	64.51
Yankton	365	92	46	10	56	608.69	358	.98	10.65	11	....	....	14	152.17
Total	....	26,429	14,314	2,817	17,131	648.18	93,675	270.00	10.46	3,409	67	38	4,289	162.28
PACIFIC STATION.														
Albatross	365	72	29	12	41	569.44	140	.38	5.27	3	....	....	7	97.22
Buffalo	365	220	119	20	139	631.81	601	1.64	7.45	23	1	....	38	172.72
California	365	861	626	108	734	852.49	3,847	10.53	12.22	93	2	....	120	139.37
Colorado	365	865	342	70	412	476.30	1,858	5.09	5.88	153	1	....	123	142.19
Glacier	365	139	66	15	81	582.73	338	.92	6.61	10	....	....	23	165.46
Iris	365	158	185	37	222	1,405.06	2,086	5.71	36.13	36	1	....	57	360.75
Maryland	365	827	258	48	306	370.01	1,954	5.35	6.46	137	4	....	62	74.96
Pennsylvania	365	768	166	64	230	299.47	1,388	3.80	4.94	84	6	4	70	91.14
South Dakota	365	851	356	74	430	505.28	2,955	8.09	9.50	88	1	....	77	90.48
Torpedo Fleet	365	736	280	55	335	455.16	1,217	3.33	4.52	113	1	1	88	119.56
Vicksburg	365	156	97	16	113	724.35	748	2.04	13.07	14	....	....	26	166.66
West Virginia	365	872	458	87	545	625.00	3,214	8.80	10.09	78	1	....	77	88.30
Yorktown	365	177	101	20	121	683.61	786	2.15	12.14	14	....	....	36	203.38
Total	....	6,702	3,083	626	3,709	553.41	21,132	57.83	8.62	846	18	5	804	119.96
ASIATIC STATION.														
Albany	365	360	172	30	202	561.11	1,472	4.03	11.19	30	....	....	57	158.33
Callao	365	36	29	3	32	888.88	357	.97	26.94	3	1	....	11	305.55
Cincinnati	82	52	38	6	44	846.15	91	1.10	21.15	9	....	....	22	423.07
Elcano	365	99	54	4	58	585.85	208	.56	5.65	9	....	....	19	191.91
Helena	365	222	93	11	104	468.46	1,715	4.79	21.57	5	2	....	34	153.15
Mindoro	102	7	10	1	11	1,571.42	54	.52	74.28	4	....	....	1	142.85
Mohican	365	178	159	10	169	949.43	400	1.09	6.12	85	....	....	36	202.24
Monadnock	256	116	52	4	56	482.76	190	.52	4.48	11	....	....	22	189.65
Monterey	365	183	64	8	72	393.44	205	.56	3.06	14	....	....	41	224.04
New Orleans	365	337	172	12	184	545.99	822	2.25	6.67	50	1	....	79	234.42
Pampanga	264	28	19	6	25	892.85	197	.74	26.42	1	1	....	8	285.71
Paragua	109	12	4	1	5	416.66	51	.46	38.33	1	....	....	1	83.33
Piscataqua	365	48	39	6	45	937.50	100	.27	5.62	25	....	....	10	208.33
Pompey	189	42	63	3	66	1,571.42	309	1.63	38.80	1	....	....	38	904.76
Quiros	365	63	51	7	58	920.63	213	.58	9.20	7	....	....	19	301.58
Rainbow	365	196	155	21	176	897.95	851	2.33	11.88	26	....	....	43	219.38
Samar	365	30	29	3	32	1,066.66	378	1.03	34.33	....	....	....	8	266.66
Saratoga	365	587	314	61	375	638.84	1,558	4.26	7.25	44	....	....	141	240.20
Torpedo Fleet	365	333	367	25	392	1,177.17	1,404	3.84	11.53	121	1	....	85	255.25
Villalobos	365	60	53	8	61	1,016.66	331	.90	15.00	1	....	1	25	416.66
Wilmington	365	204	68	1	69	338.23	229	.62	3.03	14	....	1	37	181.37
Wompatuck	365	42	14	2	16	380.95	27	.07	1.66	8	....	....	3	71.42
Total	....	3,235	2,019	233	2,252	696.01	11,162	33.12	10.23	469	6	2	740	228.74

RECEIVING AND STATION SHIPS.

Name of ship.	Number of days in service this year.	Average complement corrected for time.	Admissions and readmissions.			Ratio per 1,000.	Sick days.	Daily average of patients.	Ratio per 1,000 of force sick daily.	Transferred to hospital.	Deaths.	Invalided from services.	Admissions for primary venereal diseases.	
			Disease.	Injury.	Total.								No. of cases.	Ratio per 1,000.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Alliance	188	49	28	4	32	653.06	149	.79	16.12	1	....	....	.....	......
Annapolis	350	96	52	21	73	760.41	497	1.42	14.66	10	1	....	8	83.33
Baltimore	346	189	72	9	81	428.57	599	1.73	9.15	14	....	....	24	126.93
Franklin	365	2,364	1,126	85	1,211	512.26	3,999	10.95	4.63	590	1	103	477	201.77
Hancock	365	873	416	41	457	523.48	1,427	3.90	4.46	231	2	20	165	189.00
Independence	365	926	379	72	451	487.04	1,452	3.97	4.28	299	3	19	82	88.55
Lancaster	365	563	543	52	595	1,056.83	1,639	4.46	7.92	137	....	17	238	422.73
Philadelphia	365	426	130	38	168	394.36	1,284	3.51	8.23	43	3	26	29	68.07
Princeton	365	131	85	15	100	763.35	510	1.39	10.61	13	1	....	18	137.40
Southery	365	497	99	18	117	235.41	1,055	2.89	5.81	19	2	1	30	60.36
Supply	365	152	85	10	95	625.00	335	.91	5.98	.....	....	....	44	289.47
Texas	42	24	14	1	15	625.00	95	2.26	94.16	3	....	....	6	250.00
Wabash	365	255	216	12	228	894.11	617	1.69	6.62	89	....	1	88	345.09
Total	....	6,545	3,245	378	3,623	553.55	13,658	39.87	6.09	1,449	13	187	1,209	184.72

YARDS AND STATIONS.

Yards:														
Boston	365	482	389	44	433	898.34	1,770	4.84	10.04	90	1	5	64	132.78
Charleston	365	157	259	31	290	1,847.13	5,084	13.92	88.66	4	5	8	46	292.99
Mare Island	365	624	294	46	340	544.87	1,234	3.38	5.41	176	....	20	73	116.98
New York	365	332	211	27	238	716.86	1,170	3.20	9.63	77	1	15	55	165.66
Norfolk	365	393	286	41	327	832.06	1,610	4.41	11.21	142	....	28	84	213.74
Pensacola	293	75	27	5	32	426.66	68	.23	3.06	21	....	3	5	66.66
Philadelphia	365	486	559	85	644	1,325.10	2,733	7.48	15.39	94	3	23	130	267.48
Portsmouth	365	151	110	14	124	821.19	625	1.71	11.32	49	....	4	20	132.45
Puget Sound	365	268	136	20	156	582.08	709	1.94	7.23	66	....	14	43	160.44
Washington	365	443	205	28	233	525.95	657	1.80	4.06	95	1	4	53	119.63
Stations:														
Annapolis, Academy	365	1,344	1,990	286	2,276	1,693.45	6,242	17.10	12.72	373	1	25	126	93.75
Cavite, P. I	365	712	465	28	493	692.41	1,251	3.42	4.80	253	....	....	110	154.49
Chicago	365	363	179	24	203	559.22	1,180	3.23	8.84	119	3	5	17	46.83
Culebra	181	25	38	11	49	1,960.00	261	1.44	57.60	1	....	....	2	80.00
Dover	365	29	7	2	9	310.34	20	.05	1.71	1	....	....	3	103.44
Guantanamo	365	308	84	20	104	337.66	794	2.17	7.04	18	1	....	27	87.66
Hawaii	365	259	176	35	211	814.67	2,129	5.83	22.50	12	....	1	35	135.13
Hingham	365	26	9	.....	9	346.15	9	.02	.76	3	....	....	7	269.23
Indian Head	365	30	13	3	16	533.33	104	.28	9.33	5	....	....	6	200.00
Iona Island	365	24	3	.....	3	125.00	3	.008	.33	1	....	....	1	41.66
Key West	365	94	31	7	38	404.25	515	1.41	15.00	.....	....	1	5	53.19
New London	205	17	12	2	14	823.52	24	.11	6.47	.....	1	....	8	470.58
New Orleans	273	91	42	9	51	560.43	663	2.42	26.59	3	1	4	16	175.82
Newport—														
Torpedo	365	303	92	22	114	376.23	686	1.33	4.38	32	....	....	20	66.00
Training	365	2,484	1,241	177	1,418	570.85	5,292	14.49	5.83	693	1	62	173	69.64
Olongapo	365	879	666	54	720	819.11	1,230	3.36	3.82	503	3	....	115	130.83
Port Royal	365	268	169	26	195	727.61	450	1.23	4.58	66	1	16	67	250.00
San Francisco (training)	365	957	1,583	105	1,688	1,763.84	14,298	39.17	40.92	124	5	19	176	183.90
San Juan	200	70	60	12	72	1,028.57	347	1.73	24.71	16	1	....	22	314.28
Tutuila	365	92	103	5	108	1,173.91	1.092	2.99	32.50	.....	....	3	3	32.60
Total	....	11,786	9,439	1,169	10,608	900.05	52,250	144.69	12.27	3,037	29	260	1,512	128.20

TABLE No. 2.—*Ships and stations—Effects of diseases and injuries during the year 1911*—Continued.

MISCELLANEOUS.

Name of ship.	Number of days in service this year.	Average complement corrected for time.	Admissions and readmissions.			Ratio per 1,000.	Sick days.	Daily average of patients.	Ratio per 1,000 of force sick daily.	Transferred to hospital.	Deaths.	Invalided from services.	Admissions for primary venereal diseases.	
			Disease.	Injury.	Total.								No. of cases.	Ratio per 1,000.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Guantanamo, Cuba, Camp Meyer	98	553	199	17	216	390.59	1,046	10.67	19.29	58	....	3	54	97.64
New York, N. Y., special duty	191	......	10	4	14	....	95	.44	......	6	....	....	.....	......
Panama, Camp Elliott	365	456	402	35	437	958.33	2,318	6.35	13.92	5	....	....	36	78.94
Peking, China	365	165	116	20	136	824.24	1,437	3.93	23.81	5	1	....	41	248.48
Philadelphia, Pa., special duty	365	.. ...	53	8	61	....	316	.86	......	18	....	....	3	......
Portsmouth, N. H., prison	365	440	131	36	167	379.54	2,942	8.06	18.31	10	....	2	26	59.09
San Diego, Cal., Camp Thomas	124	104	44	1	45	432.69	334	2.69	25.86	12	1	....	13	125.00
San Francisco. Cal., special duty	365	63	7	1	8	126.98	50	.13	2.06	5	....	....	.....	......
Shanghai, China, marine expedition	68	66	79	2	81	1,227.27	278	4.08	61.81	1	....	....	49	742.42
Washington, D. C., dispensary	365	220	98	13	111	509.54	779	2.13	9.68	24	1	2	1	4.54
Washington, D. C., Marine Barracks	365	260	143	21	164	630.76	593	1.62	6.22	102	....	3	25	96.15
Winthrop, Md., Marine Corps Rifle Range	275	73	21	2	23	315.06	87	.31	4.24	8	....	....	8	109.58
Unaccounted for by regular returns	....	4,302	135	36	171	39.74	7,380	20.21	4.96	25	13	3	40	9.29
Total	....	6,702	1,438	196	1.634	245.26	17,655	61.48	9.17	279	16	13	296	39.39
Grand total	....	61,399	33,538	5,419	38,957	634.65	209,532	614.09	10.01	9,429	149	505	8,786	143.09

TABLE No. 3.—*Hospitals and hospital ships—Effects of diseases and injuries during the year 1911.*

Hospitals.	Days in service if less than a year.	Cases under treatment.				Discharged to duty.				Invalided from service.				Died.				Continued to next year.	Total number of sick days.	Average number daily under treatment.	Average number of days' treatment per case.
		Remaining from last year.	Admissions and readmissions.		Total.	Diseases.	Injuries	Total.	Ratio per 1,000 of cases treated.	Diseases.	Injuries.	Total.	Ratio per 1,000 of cases treated.	Diseases.	Injuries.	Total.	Ratio per 1,000 of cases treated.				
			Diseases.	Injuries.																	
Annapolis, Md	......	39	418	62	519	341	53	394	759.15	20	2	22	42.38	3	....	3	5.78	35	10,876	29.79	20.95
Cañacao, P. I	......	81	654	54	789	578	46	624	790.87	1	......	1	1.26	5	1	6	7.60	30	15,847	43.41	20.08
Chelsea, Mass	......	66	1,000	105	1,171	706	74	780	662.68	49	9	58	49.53	10	....	10	8.53	107	40,532	111.04	34.61
Chicago, Ill	91	....	128	19	147	99	4	103	700.68	......	1	1	6.79	1	....	1	6.79	27	2,679	29.43	18.22
Guam	......	3	173	18	194	164	17	181	932.98	......	2	2	10.30	....	....	......	....	2	2,036	5.57	10.49
Mare Island, Cal	......	225	1,512	199	1,936	927	136	1,063	549.07	280	34	314	162.19	6	....	6	3.09	157	74,829	205.01	38.65
Newport, R. I	......	101	920	155	1,176	826	89	915	778.06	34	8	42	35.71	12	2	14	11.90	61	27,746	76.01	23.59
New York, N. Y	......	72	1,171	184	1,427	792	121	913	639.80	124	22	146	102.31	7	3	10	7.00	150	46,356	127.00	32.48
Norfolk, Va	......	185	1,779	201	2,165	1,272	127	1,399	646.18	117	24	141	65.12	16	4	20	9.23	158	62,917	172.35	29.06
Olongapo, P. I	......	59	677	47	783	602	44	646	825.03	......	......	......	....	1	....	1	1.27	23	15,729	43.09	20.08
Pensacola, Fla	293	2	38	5	45	25	4	29	644.44	3	......	3	66.66	....	....	......	....	......	1,766	6.02	39.24
Philadelphia, Pa	......	70	637	75	782	469	50	519	663.68	37	8	45	57.54	8	3	11	14.06	86	29,091	79.70	37.20
Port Royal, S. C	......	5	60	6	71	57	4	61	859.15	1	1	2	28.16	....	....	......	....	5	1,205	3.30	16.97
Portsmouth, N. H	......	35	231	25	291	170	24	194	666.66	21	2	23	79.03	1	1	2	6.87	17	10,737	29.41	36.89
Puget Sound, Wash	......	13	341	67	421	255	56	311	738.71	18	4	22	52.25	5	....	5	11.87	38	14,189	38.87	33.70
San Juan, P. R	161	6	29	6	41	23	5	28	682.92	1	......	1	24.39	....	1	1	24.39	......	1,390	8.63	33.90
Sitka, Alaska	......	1	37	14	52	38	14	52	1,000.00	......	......	......	....	....	....	......	....	......	430	1.17	8.27
Solace (hospital ship)	......	5	647	81	733	260	38	298	406.54	......	......	......	....	6	2	8	10.91	9	13,333	36.52	18.18
Washington, D. C	......	89	449	60	598	326	52	378	632.10	37	8	45	75.25	5	....	5	8.36	55	19,222	52.66	32.14
Yokohama, Japan	......	16	91	11	118	74	6	80	677.96	......	......	......	....	....	1	1	8.47	2	4,621	12.66	39.16
Total	......	1,073	10,992	1,394	13,459	8,004	964	8,968	666.31	743	125	868	64.49	86	18	104	7.72	967	395,531	55.58	29.38

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature).*

[This table does not include the Naval Sanatorium for Tuberculosis at Las Animas, Colo., and hospitals for the insane.]

Nomenclature.	Taken up as— Remaining from last year.	Taken up as— Admitted.	Taken up as— Readmitted.	Disposition. Duty.	Disposition. Diagnosis changed.	Disposition. Deserted.	Disposition. Died.	Disposition. Invalided from service.	Disposition. Naval Hospital.	Disposition. Hospital for the Insane.	Disposition. Naval Hospital for Tuberculosis.	Disposition. Sick leave.	Disposition. Transferred.	Continued to next year.	Total number of sick days.
CLASS NO. 1.—PARASITIC INFECTIONS (ANIMAL).															
Amœbiasis:															
Stations and yards		1	2	1					2						16
Hospitals and hospital ships		5	2	6	1										189
Total		6	4	7	1				2						205
Ankylostomiasis:															
Force afloat		5		4					1						7
Stations and yards		94		91					3						211
Hospitals and hospital ships	1	12	4	15	2										309
Total	1	111	4	110	2				4						527
Ascariasis:															
Force afloat		10		10											20
Stations and yards		8		8											16
Hospitals and hospital ships		2		1	1										78
Total		20		19	1										114
Filariasis: Stations and yards	1	17	17	34				1							400
Tæniasis:															
Force afloat		15		14										1	38
Stations and yards		16	3	14					5						47
Hospitals and hospital ships		3	5	8											103
Total		34	8	36					5					1	188
Other diseases of this class, Myiasis: Stations and yards		2		2											4

Totals for class No. 1:															
Force afloat		30		28					1					1	65
Stations and yards	1	138	22	150				1	10						694
Hospitals and hospital ships	1	22	11	30	4										679
Total	2	190	33	208	4			1	11					1	1,438
CLASS NO. 2.—GENERAL INFECTIVE DISEASES (NONVENEREAL).															
Catarrhus epidemicus:															
Force afloat	3	626	10	576	26				31				1	5	2,615
Stations and yards	12	782	28	753	25				35					9	3,489
Hospitals and hospital ships	2	25	70	72	16								1	8	1,284
Total	17	1,433	108	1,401	67				66				2	22	7,388
Denguis:															
Force afloat	1	403	7	275					135					1	1,422
Stations and yards	3	304	9	126	2				187					1	890
Hospitals and hospital ships	5	125	322	434	18										3,140
Total	9	832	338	835	20				322					2	5,452
Diphtheria:															
Force afloat	3	15		6			2		10						219
Stations and yards		10	1	2					8				1		113
Hospitals and hospital ships	1	11	18	17	9		1							3	819
Total	4	36	19	25	9		3		18				1	3	1,151
Dysenteria amœbica:															
Force afloat	1	8	1	6					2				1	1	119
Stations and yards		19	5	2					22						130
Hospitals and hospital ships	3	11	31	34	1	1						1	6	2	1,455
Total	4	38	37	42	1	1			24			1	7	3	1,704
Dysenteria infectiva (bacillary):															
Force afloat		1	1	1					1						28
Stations and yards	1	2	1	1					3						17
Hospitals and hospital ships	1	1	4	4	1									1	171
Total	2	4	6	6	1				4					1	216
Dysenteria (undefined):															
Force afloat		35	1	28	1				4				1	2	200
Stations and yards		13		5					8						63
Hospitals and hospital ships	2	1	17	15	2								2	1	941
Total	2	49	18	48	3				12				3	3	1,204

TABLE No. 4.—*Detailed statement of disease and injury for 1911* (*Navy nomenclature*)—Continued.

Nomenclature.	Taken up as—			Disposition										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 2.—GENERAL INFECTIVE DISEASES (NONVENEREAL)—Continued.															
Enteritis flagellata:															
Force afloat	......	2	......	2	......	....	......	......	......	....	......	......	......	......	7
Stations and yards	......	3	......	2	......	....	......	......	1	....	......	......	......	......	4
Hospitals and hospital ships	......	......	1	......	......	....	......	......	......	....	......	......	......	1	21
Total	......	5	1	4	......	....	......	......	1	....	......	......	......	1	32
Enteritis infectiva:															
Force afloat	......	5	......	4	......	....	......	......	1	....	......	......	......	......	20
Hospitals and hospital ships	......	......	1	......	1	....	......	......	......	....	......	......	......	......	3
Total	......	5	1	4	1	....	......	......	1	....	......	......	......	......	23
Erysipelas:															
Force afloat	......	7	1	3	......	....	......	......	3	....	......	......	2	......	40
Stations and yards	......	3	1	1	2	....	......	......	1	....	......	......	......	......	72
Hospitals and hospital ships	......	5	4	7	1	....	......	......	......	....	......	......	......	1	121
Total	......	15	6	11	3	....	......	......	4	....	......	......	2	1	233
Febris cerebrospinalis:															
Force afloat	......	1	......	......	......	....	......	......	1	....	......	......	......	......	1
Stations and yards	......	8	1	1	......	....	......	......	8	....	......	......	......	......	41
Hospitals and hospital ships	......	3	10	5	2	....	3	1	......	....	......	1	......	1	480
Total	......	12	11	6	2	....	3	1	9	....	......	1	......	1	522
Febris flava:															
Force afloat	......	1	......	......	......	....	1	......	......	....	......	......	......	......	1

Febris pneumonica:															
Force afloat	2	79	1	21	3	....	2	....	54	....	....	....	2	....	717
Stations and yards	1	63	4	17	2	....	1	....	46	....	....	....	1	1	527
Hospitals and hospital ships	21	21	102	90	30	....	6	....	....	....	1	2	5	10	4,157
Total	24	163	107	128	35	....	9	....	100	....	1	2	8	11	5,401
Febris rheumatica:															
Force afloat	4	181	33	123	5	....	....	....	85	....	....	....	2	3	1,806
Stations and yards	2	118	28	71	3	....	....	4	67	....	....	....	....	3	1,089
Hospitals and hospital ships	13	15	169	131	22	....	....	8	....	....	....	2	22	12	7,496
Total	19	314	230	325	30	....	....	12	152	....	....	2	24	18	10,391
Febris typhoides:															
Force afloat	2	98	11	9	1	....	1	....	87	....	....	....	11	2	1,166
Stations and yards	....	92	18	22	2	....	2	....	82	....	....	1	1	....	1,529
Hospitals and hospital ships	35	32	175	131	38	....	12	....	....	....	....	24	11	26	11,329
Total	37	222	204	162	41	....	15	....	169	....	....	25	23	28	14,024
Icterus gravis:															
Force afloat	....	7	....	7	....	....	....	....	....	....	....	....	....	....	39
Malaria:															
(*a*) Cachexia malarialis—															
Force afloat	....	6	4	9	....	....	....	....	1	....	....	....	....	....	47
Stations and yards	....	2	2	2	....	....	....	1	1	....	....	....	....	....	29
Hospitals and hospital ships	....	1	3	3	....	....	....	....	....	....	....	....	1	....	120
Total	....	9	9	14	....	....	....	1	2	....	....	....	1	....	196
(*b*) Febris æstivoautumnalis—															
Force afloat	2	95	22	104	1	....	....	....	14	....	....	....	....	....	712
Stations and yards	....	61	19	75	1	....	....	....	4	....	....	....	....	....	429
Hospitals and hospital ships	6	7	19	24	3	....	....	....	....	....	....	....	3	2	686
Total	8	163	60	203	5	....	....	....	18	....	....	....	3	2	1,827
(*c*) Febris hæmoglobinurica—															
Force afloat	....	1	....	1	....	....	....	....	....	....	....	....	....	....	5
Stations and yards	....	1	....	....	....	....	....	....	1	....	....	....	....	....	14
Hospitals and hospital ships	....	....	1	1	....	....	....	....	....	....	....	....	....	....	38
Total	....	2	1	2	....	....	....	....	1	....	....	....	....	....	57
(*d*) Febris quartana—															
Force afloat	....	11	....	10	1	....	....	....	....	....	....	....	....	....	95
Hospitals and hospital ships	....	2	....	....	1	....	....	....	....	....	....	....	....	1	39
Total	....	13	....	10	2	....	....	....	....	....	....	....	....	1	134

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.									Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 2.—GENERAL INFECTIVE DISEASES (NONVEVEREAL)—Continued.															
Malaria—Continued.															
(*c*) Febris tertiana—															
Force afloat		155	38	171	2				17				2	1	1,022
Stations and yards		343	116	362	2				93					2	1,609
Hospitals and hospital ships	7	51	111	154	10	1						1	2	1	2,453
Total	7	549	265	687	14	1			110			1	4	4	5,084
Morbilli:															
Force afloat		177	1	61	3				110				4		1,208
Stations and yards		249	7	75	7				171				3		1,329
Hospitals and hospital ships	1	35	281	283	33								1		6,165
Total	1	461	289	419	43				281				8		8,702
Paralysis ascendens acuta:															
Stations and yards		1		1											22
Parotiditis epidemica:															
Force afloat	1	244	6	120					117				8	6	2,541
Stations and yards	9	609	2	229	6				379					6	5,204
Hospitals and hospital ships	76	34	507	570	15	1							9	22	11,845
Total	86	887	515	919	21	1			496				17	34	19,590
Phagedæna:															
Force afloat		1							1						7
Hospitals and hospital ships			1	1											83
Total		1	1	1					1						90

Pyæmia:															
Stations and yards		1							1						52
Hospitals and hospital ships		3	1		1		2	1							175
Total		4	1		1		2	1	1						227
Pyrexia ortus incerti:															
Force afloat		99	2	64	3				31				2	1	579
Stations and yards		131	9	40	1				96				2	1	327
Hospitals and hospital ships	5	6	127	71	62								1	4	1,312
Total	5	236	138	175	66				127				5	6	2,218
Rheumatismus articularis chronicus:															
Force afloat	2	80	16	47	1			1	46				2	1	789
Stations and yards		55	17	33				4	33					2	508
Hospitals and hospital ships	12	10	88	63	13			16				1	10	7	4,548
Total	14	145	121	143	14			21	79			1	12	10	5,845
Rubella:															
Force afloat		19		9	1				9						104
Stations and yards		131	1	12	1				119						312
Hospitals and hospital ships	19	20	129	150	7								3	8	2,499
Total	19	170	130	171	9				128				3	8	2,915
Scarlatina:															
Force afloat		9		3					5					1	89
Stations and yards		3							3						5
Hospitals and hospital ships	1	2	9	8	3									1	297
Total	1	14	9	11	3				8					2	391
Septicæmia:															
Force afloat		1							1						22
Stations and yards		3	1				2		2						43
Hospitals and hospital ships	1	1	3	3			1							1	59
Total	1	5	4	3			3		3					1	124
Tuberculosis miliaris acuta:															
Force afloat		3							2				1		35
Stations and yards		1									1				14
Hospitals and hospital ships		2	3	1	1		3								30
Total		6	3	1	1		3		2		1		1		79

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 2. GENERAL INFECTIVE DISEASES (NONVENEREAL)—Con.															
Tuberculosis pneumonica:															
Force afloat	7	138	16	2	1		2		143		1		9	3	1,473
Stations and yards	3	58	25	11			4	10	48		7		6		1,763
Hospitals and hospital ships	24	86	233	32	34		5	27			186	1	47	11	7,618
Total	34	282	274	45	35		11	37	191		194	1	62	14	10,854
Tuberculosis of other parts:															
Force afloat		12		2					10						94
Stations and yards		1	1	1					1						50
Hospitals and hospital ships	2	6	14	3	2	2	1	4			2		6	2	998
Total	2	19	15	6	2	2	1	4	11		2		6	2	1,142
Vaccina:															
Force afloat		48	2	49									1		147
Stations and yards		131	2	120	1				12						564
Hospitals and hospital ships		2	12	13	1										141
Total		181	16	182	2				12				1		852
Varicella:															
Force afloat		35		16					18					1	251
Stations and yards		13	3	5					11						88
Hospitals and hospital ships	3	6	30	32	3									4	596
Total	3	54	33	53	3				29					5	935

Variola:															
Stations and yards		2		1					1						22
Hospital and hospital ships			1	1											36
Total		2	1	2					1						58
Other diseases of this class:															
Leprosy—															
Force afloat		1						1							6
Pellagra—															
Hospital and hospital ships		1		1											35
Vincent's angina—															
Force afloat		13	1	13			1								92
Stations and yards		13		11					2						80
Hospital and hospital ships		4	2	5	1										109
Total		30	3	29	1		1		2						281
Totals for class No. 2:															
Force afloat	28	2,617	174	1,742	49		9	2	939		1		49	28	17,718
Stations and yards	31	3,226	301	1,981	55		9	19	1,446		8	1	14	25	20,428
Hospital and hospital ships	240	529	2,499	2,359	331	5	34	57			189	33	130	130	71,299
Total	299	6,372	2,974	6,082	435	5	52	78	2,385		198	34	193	183	109,445
CLASS No. 3. CONSTITUTIONAL DISORDERS OF NUTRITION.															
SUBSIDIARY CLASS 1.—*General diseases of nutrition.*															
Diabetes insipidus:															
Force afloat		2		1					1						7
Stations and yards			1					1							2
Hospitals and hospital ships		2	1	1				1					1		89
Total		4	2	2				2	1				1		98
Diabetes mellitus:															
Force afloat	1	8	4				1		11				1		113
Stations and yards		2	4	4					2						176
Hospitals and hospital ships	3		13	5	2		1	4				2	2		460
Total	4	10	21	9	2		2	4	13			2	3		749
Hæmophilia:															
Force afloat		1							1						2
Hospitals and hospital ships		1	1	1				1							52
Total		2	1	1				1	1						54

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.											
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval hospital.	Hospital for the insane.	Naval Hospital for [illegible]	Sick leave.	Transferred.	Remaining [illegible]	Total sick days.
CLASS NO. 3.—CONSTITUTIONAL DISORDERS OF NUTRITION—Contd.															
SUBSIDIARY CLASS 1.—*General diseases of nutrition.*															
Lithæmia:															
Force afloat	1								1						19
Stations and yards		2	1	2					1						35
Hospitals and hospital ships			2		2										60
Total	1	2	3	2	2				2						114
Obesitas:															
Force afloat		1							1						1
Hospitals and hospital ships		1	1	1										1	70
Total		2	1	1					1					1	71
Pseudoleucocythaemia:															
Hospitals and hospital ships	1				1										300
Purpura:															
Stations and yards	1			1											4
Other diseases of subclass No. 1:															
Malnutrition—															
Stations and yards	1	4	1	1				3	2						32
Hospitals and hospital ships			2	1				1							196
Total	1	4	3	2				4	2						228
Podagra—															
Force afloat		1		1											9

Totals for class No. 3, subclass No. 1:															
Force afloat	2	13	4	2			1		15				1		151
Stations and yards	2	8	7	8				4	5						249
Hospitals and hospital ships	4	4	20	9	5		1	7				2	3	1	1,259
Total	8	25	31	19	5		2	11	20			2	4	1	1,659
SUBCLASS NO. 2.—*Diseases of the blood.*															
Anemia perniciosa:															
Force afloat		1												1	53
Stations and yards		1	1						2						95
Hospitals and hospital ships	2	3	4	2			1					1	3	2	568
Total	2	5	5	2			1		2			1	3	3	716
Anemia simplex:															
Force afloat		6	1	3					4						45
Stations and yards		6	2	7					1						164
Hospitals and hospital ships	1	8	6	9			1	1				1	3		408
Total	1	20	9	19			1	1	5			1	3		617
Leukocythemia: Hospitals and hospital ships	1						1								45
Totals for class No. 3, subclass No. 2:															
Force afloat		7	1	3					4					1	98
Stations and yards		7	3	7					3						259
Hospitals and hospital ships	4	11	10	11			3	1				2	6	2	1,021
Total	4	25	14	21			3	1	7			2	6	3	1,378
SUBCLASS NO. 3.—*Diseases of the ductless glands.*															
Bronchocele:															
Force afloat		7	2	1					8						27
Stations and yards		10	3	3				3	7						70
Hospitals and hospital ships		5	17	7	1			7					3	4	679
Total		22	22	11	1			10	15				3	4	776
Other diseases of subclass No. 3:															
Exophthalmic goiter—															
Stations and yards			1	1											42
Hospitals and hospital ships		1	1									2			32
Total		1	2	1								2			74

TABLE NO. 4.—*Detailed statement of disease and injury for 1911* (*Navy nomenclature*)—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 3.—CONSTITUTIONAL DISORDERS OF NUTRITION—Contd.															
SUBSIDIARY CLASS 1.—*General diseases of nutrition.*															
Lithæmia:															
Force afloat	1								1						19
Stations and yards		2	1	2					1						35
Hospitals and hospital ships			2		2										60
Total	1	2	3	2	2				2						114
Obesitas:															
Force afloat		1							1						1
Hospitals and hospital ships		1	1	1										1	70
Total		2	1	1					1					1	71
Pseudoleucocythaemia:															
Hospitals and hospital ships	1				1										332
Purpura:															
Stations and yards	1			1											4
Other diseases of subclass No. 1:															
Malnutrition—															
Stations and yards	1	4	1	1				3	2						32
Hospitals and hospital ships			2	1				1							196
Total	1	4	3	2				4	2						228
Podagra—															
Force afloat		1		1											9

Totals for class No. 3, subclass No. 1:															
Force afloat	2	13	4	2			1		15				1		151
Stations and yards	2	8	7	8				4	5						249
Hospitals and hospital ships	4	4	20	9	5		1	7				2	3	1	1,259
Total	8	25	31	19	5		2	11	20			2	4	1	1,659
SUBCLASS NO. 2.—*Diseases of the blood.*															
Anemia perniciosa:															
Force afloat		1												1	53
Stations and yards		1	1						2						95
Hospitals and hospital ships	2	3	4	2			1					1	3	2	568
Total	2	5	5	2			1		2			1	3	3	716
Anemia simplex:															
Force afloat		6	1	3					4						45
Stations and yards		6	2	7					1						164
Hospitals and hospital ships	1	8	6	9			1	1				1	3		408
Total	1	20	9	19			1	1	5			1	3		617
Leukocythemia: Hospitals and hospital ships	1						1								45
Totals for class No. 3, subclass No. 2:															
Force afloat		7	1	3					4					1	98
Stations and yards		7	3	7					3						259
Hospitals and hospital ships	4	11	10	11			3	1				2	6	2	1,021
Total	4	25	14	21			3	1	7			2	6	3	1,378
SUBCLASS NO. 3.—*Diseases of the ductless glands.*															
Bronchocele:															
Force afloat		7	2	1					8						27
Stations and yards		10	3	3				3	7						70
Hospitals and hospital ships		5	17	7	1			7					3	4	679
Total		22	22	11	1			10	15				3	4	776
Other diseases of subclass No. 3:															
Exophthalmic goiter—															
Stations and yards			1	1											42
Hospitals and hospital ships		1	1									2			32
Total		1	2	1								2			74

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 3.—CONSTITUTIONAL DISORDERS OF NUTRITION—Contd.															
SUBCLASS NO. 3.—*Diseases of the ductless glands*—Continued.															
Totals for class No. 3, subclass No. 3:															
Force afloat		7	2	1					8						27
Stations and yards		10	4	4				3	7						112
Hospitals and hospital ships		6	18	7	1			7				2	3	4	711
Total		23	24	12	1			10	15			2	3	4	850
Totals for class No. 3:															
Force afloat	2	27	7	6			1		27				1	1	276
Stations and yards	2	25	14	19				7	15						620
Hospitals and hospital ships	8	21	48	27	6		4	15				6	12	7	2,991
Total	12	73	69	52	6		5	22	42			6	13	8	3,887
CLASS NO. 4.—DISEASES OF THE NERVOUS SYSTEM.															
Apoplexy:															
Force afloat		2					1		1						8
Hospitals and hospital ships	1		2	1									1	1	192
Total	1	2	2	1			1		1				1	1	200
Aphasia:															
Stations and yards		2							2						2
Hospitals and hospital ships			2	1				1							28
Total		2	2	1				1	2						30

Cephalalgia:															
Force afloat		29		19	1				9						58
Stations and yards		142	10	120				7	16				9		263
Hospitals and hospital ships	4	2	25	12	9			2				1	5	2	774
Total	4	173	35	151	10			9	25			1	14	2	1,122
Chorea:															
Stations and yards		1		1											1
Hospitals and hospital ships		1	1	1										1	18
Total		2	1	2										1	19
Dementia:															
Force afloat	2	38	6					1	39				5	1	295
Stations and yards		23	8	2	1			7	15	5			1		380
Hospitals and hospital ships	6	30	68	6	6		2	12		56			16	6	2,248
Total	8	91	82	8	7		2	20	54	61			22	7	2,923
Encephalitis:															
Stations and yards		1							1						1
Hospitals and hospital ships		1	1				1	1							180
Total		2	1				1	1	1						181
Epilepsia:															
Force afloat	3	42	15	21	1			4	29				5		448
Stations and yards	4	43	8	8				25	22						421
Hospitals and hospital ships	1	2	60	11	2	2		35					12	1	1,740
Total	8	87	83	40	3	2		64	51				17	1	2,609
Febris thermica:															
Force afloat		29		28	1										121
Hospitals and hospital ships		1		1											3
Total		30		29	1										124
Hemicrania:															
Force afloat		1		1											1
Hemiplegia:															
Force afloat		2	2						3					1	105
Stations and yards		3	2					2	2				1		264
Hospitals and hospital ships	3	1	5	2				4					3		786
Total	3	6	9	2				6	5				4	1	1,155

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 4.—DISEASES OF THE NERVOUS SYSTEM—Continued.															
Hysteria:															
Force afloat		7	2	4	1				3				1		36
Stations and yards		7	3	1				2	7						67
Hospitals and hospital ships		6	13	6	2			6					4	1	638
Total		20	18	11	3			8	10				5	1	741
Insanitas manic-depremens:															
Force afloat	3	17	2	1					21						119
Stations and yards		12	5					4	12	1					113
Hospitals and hospital ships	3	7	39	6	5			3		25			8	2	1,175
Total	6	36	46	7	5			7	33	26			8	2	1,407
Insomnia:															
Force afloat		1							1						1
Stations and yards		18	1	15					4						92
Hospitals and hospital ships			5	3								1		1	41
Total		19	6	18					5			1		1	134
Meningitis:															
Force afloat		2	1						3						6
Stations and yards		3		1					2						29
Hospitals and hospital ships	2	2	5	2	3			1					2	1	484
Total	2	7	6	3	3			1	5				2	1	519
Monoplegia:															
Force afloat		8		3					5						90
Stations and yards		10	1	3					8						65

Hospitals and hospital ships	2	3	16	11	1			4					3	2	991
Total	2	21	17	17	1			4	13				3	2	1,146
Myelitis:															
Force afloat	2								2						24
Hospitals and hospital ships		1	2					2					1		452
Total	2	1	2					2	2				1		476
Nausea marina:															
Force afloat		56	10	53				6	6				1		125
Stations and yards		5		4				1							51
Hospitals and hospital ships	1	1	6	1	1			6							·140
Total	1	62	16	58	1			13	6				1		316
Neuralgia:															
Force afloat		43	3	38					8						182
Stations and yards		31	2	28		1			4						97
Hospitals and hospital ships			13	6	7										338
Total		74	18	72	7	1			12						617
Neurasthenia:															
Force afloat	1	54	9	14				1	41	1		3	3	1	479
Stations and yards		50	35	36				6	37			1	5		1,810
Hospitals and hospital ships	10	17	100	44	19	1		21				13	21	8	3,743
Total	11	121	144	94	19	1		28	78	1		17	29	9	6,032
Neuritis:															
Force afloat	1	25	2	16					12						270
Stations and yards		18	6	8				1	15						243
Hospitals and hospital ships	4	5	33	19	3			7				1	10	2	1,834
Total	5	48	41	43	3			8	27			1	10	2	2,347
Neuritis multiplex:															
Stations and yards		2	1	1					2						67
Hospitals and hospital ships	1		4	1				1				1	2		226
Total	1	2	5	2				1	2			1	2		293
Nostalgia:															
Force afloat		1							1						1
Stations and yards		3		2					1						43
Hospitals and hospital ships		1	2	3											39
Total		5	2	5					2						83

TABLE No. 4.—*Detailed statement of disease and injury for 1911* (*Navy nomenclature*)—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 4.—DISEASES OF THE NERVOUS SYSTEM—Continued.															
Edema angeiospasticum:															
Force afloat		2		2											5
Stations and yards		1		1											7
Hospitals and hospital ships	1							1							20
Total	1	3		3				1							32
Paralysis agitans:															
Hospitals and hospital ships		1												1	48
Paralysis glosso-labio-laryngealis:															
Hospitals and hospital ships		1			1										148
Paranoia:															
Force afloat		1							1						2
Stations and yards		1							1						1
Hospitals and hospital ships		2	2	1	1					2					32
Total		4	2	1	1				2	2					35
Paraplegia:															
Force afloat		1							1						3
Hospitals and hospital ships			1	1											18
Total		1	1	1					1						21
Prostratio thermica:															
Force afloat		41	1	39					2				1		141
Stations and yards		11	1	6			1		5						19
Hospitals and hospital ships			7	7											115
Total		52	9	52			1		7				1		275

Psychasthenia:														
Force afloat	...	14	...	6	...	...	...	1	6	...	...	...	1	...	58
Stations and yards	...	23	10	5	...	...	...	12	14	...	...	1	1	...	355
Hospitals and hospital ships	...	12	23	1	5	...	...	10	...	6	...	3	6	4	844
Total	...	49	33	12	5	...	...	23	20	6	...	4	8	4	1,257
Sciatica:															
Force afloat	...	18	4	12	...	...	...	...	9	...	...	1	...	...	178
Stations and yards	...	14	5	9	...	...	...	1	8	...	...	...	...	1	178
Hospitals and hospital ships	...	5	22	16	4	...	...	2	...	...	...	...	3	2	1,157
Total	...	37	31	37	4	...	...	3	17	...	...	1	3	3	1,513
Sclerosis spinalis lateralis amyotrophica:															
Force afloat	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1
Sclerosis spinalis multiplex:															
Stations and yards	...	...	1	...	...	...	...	1	...	...	...	...	...	...	1
Hospitals and hospital ships	...	1	...	...	...	...	...	...	...	...	...	...	1	...	60
Total	...	1	1	...	...	...	...	1	...	...	...	...	1	...	61
Sclerosis spinalis posterior:															
Force afloat	...	1	...	...	...	...	...	...	1	...	...	...	...	...	3
Stations and yards	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1
Hospitals and hospital ships	3	2	3	4	1	...	...	2	...	...	...	...	1	...	286
Total	3	4	3	4	1	...	...	3	1	...	...	...	1	...	290
Torticollis spasmodica:															
Force afloat	...	6	...	5	...	...	...	...	1	...	...	...	...	...	22
Stations and yards	...	1	...	1	...	...	...	...	...	...	...	...	...	...	2
Hospitals and hospital ships	...	...	1	1	...	...	...	...	...	...	...	...	...	...	7
Total	...	7	1	7	...	...	...	...	1	...	...	...	...	...	31
Vertigo:															
Force afloat	...	15	2	14	...	...	...	1	2	...	...	...	...	...	86
Stations and yards	...	16	1	12	...	...	...	...	5	...	...	...	...	...	70
Hospitals and hospital ships	3	...	8	6	1	...	...	2	...	...	...	...	1	1	267
Total	3	31	11	32	1	...	...	3	7	...	...	...	1	1	423
Other diseases of this class:															
Anterior polio-myelitis—															
Force afloat	...	1	...	...	...	...	...	...	1	...	...	...	...	...	2
Hospitals and hospital ships	...	...	1	...	1	...	...	...	...	...	...	...	...	...	3
Total	...	1	1	...	1	...	...	...	1	...	...	...	...	...	5

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 4.—DISEASES OF THE NERVOUS SYSTEM—Continued.															
Other diseases of this class—Continued.															
Dyslalia—															
Stations and yards		4		1				2	1						30
Hospitals and hospital ships		1	1	1				1							137
Total		5	1	2				3	1						167
Somnambulism—															
Force afloat		3	1	1				1	2						11
Stations and yards		1						1							6
Hospitals and hospital ships			2	1				1							92
Total		4	3	2				3	2						109
Syncope—															
Force afloat		1		1											3
Totals for class No. 4:															
Force afloat	12	462	60	278	4		1	16	210	1		4	17	3	2,919
Stations and yards	4	447	100	265	1	1	1	73	184	6		2	17	1	4,679
Hospitals and hospital ships	45	106	473	176	72	3	3	125		89		20	100	36	19,304
Total	61	1,015	633	719	77	4	5	214	394	96		26	134	40	26,902
CLASS No. 5.—DISEASES OF THE VISUAL APPARATUS.															
Achromatopsia:															
Stations and yards	1	7	2	1				5	3				1		42
Hospitals and hospital ships	2		3		1			4							111
Total	3	7	5	1	1			9	3				1		153

Amaurosis:															
Force afloat		3			2				1						10
Hospitals and hospital ships	1		1	1				1							25
Total	1	3	1	1	2			1	1						35
Amblyopia:															
Force afloat		8	1	2	1				6						63
Stations and yards		4						2	2						45
Hospitals and hospital ships		4	9	8	2			1					1	1	323
Total		16	10	10	3			3	8				1	1	431
Asthenopia:															
Force afloat		24	1	5					20						88
Stations and yards		41	1	39				1	2						165
Hospitals and hospital ships	1	2	28	19	2			5				1	3	1	718
Total	1	67	30	63	2			6	22			1	3	1	971
Astigmatismus:															
Force afloat		26	3	7					22						57
Stations and yards		37	4	35				1	5						131
Hospitals and hospital ships		7	27	25	1			4						4	564
Total		70	34	67	1			5	27					4	752
Blepharitis:															
Force afloat		3		3											3
Stations and yards		4		4											15
Hospitals and hospital ships		1		1											1
Total		8		8											19
Cataracta:															
Force afloat		2							2						6
Hospitals and hospital ships		1	3		1			1					1	1	177
Total		3	3		1			1	2				1	1	183
Chalazion:															
Force afloat		4		2					1						5
Hospitals and hospital ships		1	1	1	1										59
Total		4	1	3	1				1						64
Chorioiditis:															
Force afloat		3		1					2						16
Stations and yards		6		2				2	2						49
Hospitals and hospital ships			5	2				1						2	405
Total		9	5	5				3	4					2	470

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 5.—DISEASES OF THE VISUAL APPARATUS—Continued.															
Conjunctivitis:															
Force afloat	4	115	11	97	3				26				2	2	673
Stations and yards		77	11	61				1	25					1	484
Hospitals and hospital ships	4	7	52	43	8			1				1	3	7	1,452
Total	8	199	74	201	11			2	51			1	5	10	2,609
Corneae ulcus:															
Force afloat	1	32	4	27					10						180
Stations and yards		8	1	3	1			1	4						72
Hospitals and hospital ships		1	14	12									1	2	399
Total	1	41	19	42	1			1	14				1	2	651
Dacryocystitis:															
Force afloat		3	1	1				1	2						37
Stations and yards		1		1											7
Hospitals and hospital ships			2	2											104
Total		4	3	4				1	2						148
Glaucoma:															
Force afloat		1							1						5
Hospitals and hospital ships		1	1	2											88
Total		2	1	2					1						93
Hordeolus:															
Force afloat		6		6											12
Stations and yards		2		2											7

Hospitals and hospital ships		1		1											9
Total		9		9											28
Hypermetropia:															
Force afloat		10	2	4					8						21
Stations and yards		46	7	52				1							200
Hospitals and hospital ships		4	9	7	2			2					2		166
Total		60	18	63	2			3	8				2		387
Iritis:															
Force afloat		39	3	19					20					3	453
Stations and yards		16	5	5				1	14				1		181
Hospitals and hospital ships	2	6	39	25	5	1		9					5	2	1,786
Total	2	61	47	49	5	1		10	34				6	5	2,419
Keratitis:															
Force afloat		22	2	13					9				2		126
Stations and yards		7	4	1	1			2	5				1	1	55
Hospitals and hospital ships		4	17	12				2					5	2	512
Total		33	23	26	1			4	14				8	3	693
Leucoma:															
Force afloat		3		3											5
Hospitals and hospital ships		2	1	1				2							56
Total		5	1	4				2							61
Myopia:															
Force afloat		8	1	4				1	4						37
Stations and yards		58	11	46				11	11				1		297
Hospitals and hospital ships		3	15	6	4	2		6							404
Total		69	27	56	4	2		18	15				1		738
Neuritis optica:															
Force afloat		5	2						7						27
Stations and yards		4	1	2					2					1	336
Hospitals and hospital ships		3	9	3	2			3				1	1	2	335
Total		12	12	5	2			3	9			1	1	3	698
Obstructio lacrimalis:															
Force afloat		4		1					3						7
Stations and yards		2							2						5
Hospitals and hospital ships			5	2	2									1	110
Total		6	5	3	2				5					1	122

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 5.—DISEASES OF THE VISUAL APPARATUS—Continued.															
Panophthalmitis:															
Hospitals and hospital ships	1			1											28
Pterygium:															
Force afloat		25	2	4					22				1		71
Stations and yards		13	1	4					10						46
Hospitals and hospital ships	2	8	34	38	5			1							1,356
Total	2	46	37	46	5			1	32				1		1,473
Retinitis:															
Force afloat	1	11	2	2				1	9				1	1	117
Stations and yards		11	6	5				4	7					1	273
Hospitals and hospital ships	1	2	20	7	2			7				1	5	1	1,067
Total	2	24	28	14	2			12	16			1	6	3	1,457
Sclerotitis:															
Force afloat		5	1	5					1						29
Hospitals and hospital ships		1	1	2											73
Total		6	2	7					1						102
Trachoma:															
Force afloat		3		2					1						3
Stations and yards		7	2	1				3	4				1		70
Hospitals and hospital ships	2	3	5	1	1			7					1		264
Total	2	13	7	4	1			10	5				2		337

Other diseases of this class:															
Anisometropia—															
Stations and yards		3		3											22
Defective vision—															
Force afloat		1												1	11
Hemorrhage of anterior chamber—															
Force afloat		1		1											12
Hemorrhage of sclera—															
Force afloat		1		1											1
Heterophoria—															
Hospitals and hospital ships		1						1							35
Hyperphoria—															
Force afloat		1							1						2
Hospitals and hospital ships			1	1											25
Total		1	1	1					1						27
Presbyopia—															
Force afloat		2	1	1					2						6
Hospitals and hospital ships		2	2	4											144
Total		4	3	5					2						150
Strabismus—															
Force afloat		4	1	1					3				1		12
Stations and yards		2		1					1						7
Hospitals and hospital ships	1	1	5	1	3								1	2	181
Total	1	7	6	3	3				4				2	2	200
Symblepharon—															
Hospitals and hospital ships		2		2											40
Totals for class No. 5:															
Force afloat	6	374	38	212	6			3	183				7	7	2,095
Stations and yards	1	356	56	268	2			35	99				5	4	2,509
Hospitals and hospital ships	17	68	309	230	42	3		58				4	29	28	11,017
Total	24	798	403	710	50	3		96	282			4	41	39	15,621
CLASS NO. 6.—DISEASES OF THE AUDITORY APPARATUS.															
Mastoiditis:															
Force afloat		10	2	3					5				2	2	59
Stations and yards		3		1					2						49
Hospitals and hospital ships	1	3	10	7	2			2					2	1	700
Total	1	16	12	11	2			2	7				4	3	808

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 6.—DISEASES OF THE AUDITORY APPARATUS—Contd.															
Myringitis:															
Force afloat	......	1	......	1	......	......	......	......	......	......	......	......	......	......	4
Stations and yards	......	1	1	......	......	......	......	......	2	......	......	......	......	......	15
Hospitals and hospital ships	......	......	2	......	......	1	......	1	......	......	......	......	......	......	50
Total	......	2	3	1	......	1	......	1	2	......	......	......	......	......	69
Membranae tympani ruptio:															
Force afloat	......	18	1	16	......	......	......	......	3	......	......	......	......	......	87
Stations and yards	......	7	......	3	......	......	......	3	......	......	......	......	......	1	146
Hospitals and hospital ships	......	1	3	2	......	......	......	1	......	......	......	......	......	1	160
Total	......	26	4	21	......	......	......	4	3	......	......	......	......	2	393
Otalgia:															
Force afloat	......	1	......	1	......	......	......	......	......	......	......	......	......	......	6
Stations and yards	......	1	......	1	......	......	......	......	......	......	......	......	......	......	1
Total	......	2	......	2	......	......	......	......	......	......	......	......	......	......	7
Otitis externa:															
Force afloat	......	48	......	43	......	......	......	......	4	......	......	......	1	......	197
Stations and yards	......	14	2	8	1	......	......	......	7	......	......	......	......	......	38
Hospitals and hospital ships	1	......	11	8	3	......	......	......	......	......	......	......	......	1	379
Total	1	62	13	59	4	......	......	......	11	......	......	......	1	1	614

Otitis media:															
Force afloat		146	11	85	2			1	64				4	1	750
Stations and yards	2	166	33	82	2			22	94					1	911
Hospitals and hospital ships	16	33	179	125	20	1	1	33				1	25	22	8,627
Total	18	345	223	292	24	1	1	56	158			1	29	24	10,288
Surditas:															
Force afloat		15	3	3					14				1		97
Stations and yards		41	9	15				6	28				1		438
Hospitals and hospital ships	4	9	47	17	2			19				1	14	7	2,051
Total	4	65	59	35	2			25	42			1	16	7	2,586
Vertigo (auralis):															
Force afloat			1	1											1
Other diseases of this class:															
Othematoma—															
Force afloat			1						1						1
Hospitals and hospital ships			1	1											43
Total			2	1					1						44
Otitis interna—															
Hospitals and hospital ships		1			1										25
Tinitus aurium—															
Force afloat		1							1						2
Hospitals and hospital ships			1	1											20
Total		1	1	1					1						22
Totals for class No. 6:															
Force afloat		240	19	153	2			1	92				8	3	1,204
Stations and yards	2	233	45	110	3			31	133				1	2	1,598
Hospitals and hospital ships	22	47	254	161	28	2	1	56				2	41	32	12,055
Total	24	520	318	424	33	2	1	88	225			2	50	37	14,857
CLASS NO. 7.—DISEASES OF THE OLFACTORY APPARATUS.															
Antri abscessus:															
Force afloat		4		1					3						0
Stations and yards		1							1						7
Hospitals and hospital ships			4	2									1	1	210
Total		5	4	3					4				1	1	217

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 7.—DISEASES OF THE OLFACTORY APPARATUS—Contd.															
Rhinitis acuta:															
Force afloat		40		39					1						102
Stations and yards		66	1	66					1						142
Hospitals and hospital ships			2	2											39
Total		106	3	107					2						283
Rhinitis chronica:															
Force afloat	1	26	3	4					26						82
Stations and yards		18	4	5				3	14						103
Hospitals and hospital ships	7	13	45	35	9	1		11					4	5	2,084
Total	8	57	52	44	9	1		14	40				4	5	2,269
Other diseases of this class:															
Adenoids—															
Hospitals and hospital ships			1	1											12
Hypertrophied turbinates—															
Force afloat		1							1						1
Hospitals and hospital ships			1	1											31
Total		1	1	1					1						32
Ozena—															
Force afloat		1							1						2
Hospitals and hospital ships			1					1							86
Total		1	1					1	1						88

Perforated nasal septum—															
Force afloat		1						1							7
Sinusitis (ethmoidal)—															
Hospitals and hospital ships		1												1	63
Sinusitis (frontal)—															
Force afloat		2		1					1						3
Stations and yards		1							1						1
Hospitals and hospital ships	2	3	3	3	2		1						1	1	374
Total	2	6	3	4	2		1		2				1	1	378
Totals for class 7:															
Force afloat	1	75	3	45				1	33						204
Stations and yards		86	5	71				3	17						246
Hospitals and hospital ships	9	17	57	44	11	1	1	12					6	8	2,899
Total	10	178	65	160	11	1	1	16	50				6	6	3,349
CLASS NO. 8.—DISEASES OF THE NUTRITIVE APPARATUS.															
SUBSIDIARY CLASS 1.—*Diseases of the digestive system.*															
Adenitis salivosa:															
Force afloat		2		2											9
Aniprolapsio:															
Hospitals and hospital ships		1						1							34
Ani rhagades:															
Force afloat		2		2											19
Stations and yards		1							1						1
Hospitals and hospital ships			2	1										1	10
Total		3	2	3					1					1	30
Appendicitis:															
Force afloat	5	300	34	110			4		212				8	5	1,925
Stations and yards	3	145	27	67			1	2	101				3	1	1,378
Hospitals and hospital ships	36	46	345	314	36		5	8				7	26	31	13,023
Total	44	491	406	491	36		10	10	313			7	37	37	16,326
Catarrhus gastricus acutus:															
Force afloat	1	103	5	95					14						405
Stations and yards		143	5	123	1				18				6		386
Hospitals and hospital ships	3	7	32	32	8									2	657
Total	4	253	42	250	9				32				6	2	1,448

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.									Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 8.—DISEASES OF THE NUTRITIVE APPARATUS—Contd.														
SUBSIDIARY CLASS 1.—*Diseases of the digestive system*—Contd.														
Catarrhus gastricus chronicus:														
Force afloat		34	3	13					22				2		241
Stations and yards		20	6	9	1				16						162
Hospitals and hospital ships	7	9	57	36	12		1	5				1	12	6	2,176
Total	7	63	66	58	13		1	5	38			1	14	6	2,579
Catarrhus intestinalis acutus:														
Force afloat		126	2	112	2		1		12					1	511
Stations and yards		284	7	262	1				26				2		869
Hospitals and hospital ships		5	38	29	9							2	1	2	492
Total		415	47	303	12		1		38			2	3	3	1,872
Catarrhus intestinalis chronicus:														
Force afloat		2		2											6
Stations and yards	1	4							5						17
Hospitals and hospital ships			8	4	2								2		303
Total	1	6	8	6	2				5				2		326
Cholangeitis:														
Force afloat	1	50		42	1				8						365
Stations and yards		22	1	14					9						263
Hospitals and hospital ships	2	2	19	18	5										491
Total	3	74	20	74	6				17						1,119

Cholecystitis:															
Force afloat		18	4	11					11						130
Stations and yards		12		5					7						117
Hospitals and hospital ships	4	2	21	14	3			2					5	3	773
Total	4	32	25	30	3			2	18				5	3	1,020
Cholelithiasis:															
Force afloat		9	5	6					7				1		30
Stations and yards		4	1	1					4						4
Hospitals and hospital ships	2	1	13	6	6								2	2	436
Total	2	14	19	13	6				11				3	2	470
Colica:															
Force afloat	1	129	6	127	1				8						376
Stations and yards		115	2	109				1	7						202
Hospitals and hospital ships		1	11	11	1										145
Total	1	245	19	247	2			1	15						723
Colitis:															
Force afloat		12	1	9					2				2		73
Stations and yards		8	1	8										1	41
Hospitals and hospital ships			2	2											68
Total		20	4	19					2				2	1	182
Constipatio:															
Force afloat		80	1	71					10						222
Stations and yards	1	98	1	91	1			2	5					1	190
Hospitals and hospital ships	1	4	17	12	4			2					4		453
Total	2	182	19	174	5			4	15				4	1	845
Dentis caries:															
Force afloat		15		11					4						55
Stations and yards		20	3	17				2	3				1		90
Hospitals and hospital ships			7	5	1			1							255
Total		35	10	33	1			3	7				1		400
Dyspepsia nervosa:															
Force afloat		5		4					1						20
Stations and yards		3		3											5
Hospitals and hospital ships	1		1	1	1										111
Total	1	8	1	8	1				1						136

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 8.—DISEASES OF THE NUTRITIVE APPARATUS—Contd.															
SUBSIDIARY CLASS 1.—*Diseases of the digestive system*—Continued.															
Enteritis:															
Force afloat		53	3	52					4						204
Stations and yards		53	1	27	1				26						282
Hospitals and hospital ships		7	32	31	7									1	506
Total		113	36	110	8				30					1	992
Fistula in ano:															
Force afloat		24	6	11					19						234
Stations and yards		25	4	5	1			1	22						111
Hospitals and hospital ships	4	4	44	36	6			1			1		5	3	2,354
Total	4	53	54	52	7			2	41		1		5	3	2,699
Gastralgia:															
Force afloat		11		10					1						32
Stations and yards		6		6											17
Hospitals and hospital ships		1	2	1									1	1	55
Total		18	2	17					1				1	1	104
Gastrectasis:															
Force afloat		2		1			1								4
Gastroptosis:															
Force afloat		1	1						2						3
Hospitals and hospital ships		1	2	2										1	125
Total		2	3	2					2					1	128

Glossitis:															
Stations and yards		1		1											4
Hæmorrhois:															
Force afloat	2	197	13	83					127				1	1	763
Stations and yards		114	9	30				1	90				2		434
Hospitals and hospital ships	21	18	217	220	17			1					6	12	6,332
Total	23	329	239	333	17			2	217				9	13	7,529
Hepatis congestio:															
Force afloat		15	1	11					4				1		102
Stations and yards		13		13											98
Hospitals and hospital ships	1	5	4	9	1										158
Total	1	33	5	33	1				4				1		358
Hepatitis acuta:															
Force afloat		3		1					2						14
Stations and yards		9		2					7						33
Hospitals and hospital ships			9	7	2										245
Total		12	9	10	2				9						292
Hepatitis chronica:															
Stations and yards		2							2						3
Hospitals and hospital ships		1	3	2	1		1								174
Total		3	3	2	1		1		2						177
Hepatitis suppurativa:															
Force afloat		1					1								84
Hospitals and hospital ships		4	2	4				1					1		348
Total		5	2	4			1	1					1		432
Hypertrophia tonsillaris:															
Force afloat		39		19					20						92
Stations and yards		25	3	9				1	18						67
Hospitals and hospital ships	3	12	39	48	3	1								2	1,371
Total	3	76	42	76	3	1		1	38					2	1,530
Obstructio intestinalis:															
Force afloat		4					1		3						6
Stations and yards		1	1	2											34
Hospitals and hospital ships	1	3	5	3	2		1					1	2		317
Total	1	8	6	5	2		2		3			1	2		357

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 8.—DISEASES OF THE NUTRITIVE APPARATUS—Contd.															
SUBSIDIARY CLASS 1.—*Diseases of the digestive system*—Continued.															
Pancreatitis:															
Force afloat		2	1	2									1		21
Stations and yards			1						1						4
Hospitals and hospital ships			1											1	23
Total		2	3	2					1				1	1	48
Parulis:															
Force afloat		3		2					1						6
Hospitals and hospital ships			1	1											52
Total		3	1	3					1						58
Peritonitis:															
Force afloat		1							1						1
Hospitals and hospital ships		2	1				2							1	31
Total		3	1				2		1					1	32
Pharyngitis:															
Force afloat		27	1	22	1				5						95
Stations and yards		76	1	73	1				3						185
Hospitals and hospital ships		8	9	16	1										109
Total		111	11	111	3				8						389

Proctitis:															
Force afloat		2		2											14
Psilosis:															
Hospitals and hospital ships		1											1		16
Pyorrhœa alveolaris:															
Force afloat		7		5	1				1						27
Stations and yards		3	1	1					3						7
Hospitals and hospital ships			4	2	2										44
Total		10	5	8	3				4						78
Stomatitis:															
Force afloat		4		4											21
Stations and yards		3		2					1						5
Hospitals and hospital ships			1	1											21
Total		7	1	7					1						47
Tonsillitis:															
Force afloat	17	1,855	63	1,779	23				107				8	18	7,804
Stations and yards	7	845	21	737	12				118				1	5	3,419
Hospitals and hospital ships	6	67	229	268	20								1	13	4,343
Total	30	2,767	313	2,784	55				225				10	36	15,566
Ulcus duodenum:															
Force afloat		3							2				1		27
Stations and yards		2	1	3											79
Hospitals and hospital ships		2	2	1	1									2	208
Total		7	3	4	1				2				1	2	314
Ulcus gastricum:															
Force afloat		2	1	1					2						58
Stations and yards		1	1						2						20
Hospitals and hospital ships	3	5	7	10	2		1							2	463
Total	3	8	9	11	2		1		4					2	541
Uvula descendens:															
Stations and yards		1							1						1
Hospitals and hospital ships		1	1	2											55
Total		2	1	2					1						56

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as— Remaining from last year.	Admitted.	Readmitted.	Disposition. Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.	Continued to next year.	Total number of sick days.
CLASS No. 8.—DISEASES OF THE NUTRITIVE APPARATUS—Contd.															
SUBSIDIARY CLASS 1.—*Diseases of the digestive system*—Continued.															
Other diseases of subclass 1:															
Anasarca—															
Force afloat		1		1											6
Dentis eruptio—															
Stations and yards		2		2											5
Fistula, abdominal—															
Hospitals and hospital ships			1	1											112
Fistula, fecal—															
Hospitals and hospital ships		1											1		41
Fistula, salivary—															
Stations and yards		1							1						1
Hospitals and hospital ships			1	1											10
Total		1	1	1					1						11
Gastro-enteritis—															
Force afloat	1								1						3
Stations and yards			1	1											34
Hospitals and hospital ships		1	1	1								1			37
Total	1	1	2	2					1			1			74
Gingivitis—															
Stations and yards		1		1											2
Hæmorrhage, from bowels—															
Stations and yards		1		1											15

Ptyalismus—															
Force afloat		1		1											10
Stricture, common hepatic duct—															
Hospitals and hospital ships		1		1											63
Totals for class 8, subclass No. 1:															
Force afloat	28	3,145	151	2,624	29		8		613				25	25	14,018
Stations and yards	12	2,064	99	1,625	19		1	10	497				15	8	8,585
Hospitals and hospital ships	95	223	1,191	1,153	153	1	11	22			1	12	70	86	37,040
Total	135	5,432	1,441	5,402	201	1	20	32	1,110		1	12	110	119	59,643
SUBSIDIARY CLASS 2.—*Diseases of the circulatory system.*															
A—BLOOD VESSELS.															
Aneurysma:															
Force afloat		2		1			1								18
Stations and yards		2					1		1						2
Hospitals and hospital ships	1	2	1	2			2								57
Total	1	6	1	3			4		1						77
Angina pectoris:															
Force afloat		4	1	2					3						28
Stations and yards		4	2	1			2		3						22
Hospitals and hospital ships	1		6	2	3			1					1		151
Total	1	8	9	5	3		2	1	6				1		201
Arteriosclerosis:															
Stations and yards		2	1	2					1						11
Hospitals and hospital ships			1				1								5
Total		2	2	2			1		1						16
Cordis dilatatio:															
Force afloat		1		1											6
Stations and yards		4		2			1					1			52
Hospitals and hospital ships			2				1							1	6
Total		5	2	3			2					1		1	64
Cordis hypertrophia:															
Force afloat		1	2	1				1	1						41
Stations and yards		1						1							25
Hospitals and hospital ships		1	2			1		2							71
Total		3	4	1		1		4	1						137

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 8.—DISEASES OF THE NUTRITIVE APPARATUS—Contd.															
SUBSIDIARY CLASS 2.—*Diseases of the circulatory system*—Contd.															
A—BLOOD VESSELS—continued.															
Cordis palpitatic:															
Force afloat	1	31	3	20	1			1	12				1		298
Stations and yards		23	9	12	1			4	13				1	1	283
Hospitals and hospital ships	3	2	26	10	3			12						6	1,379
Total	4	56	38	42	5			17	25				2	7	1,960
Cordis valvularum morbus:															
Force afloat	1	30	4	14	1		1		18				1		140
Stations and yards	1	68	11	13				37	27				3		706
Hospitals and hospital ships	4	30	54	17	4		2	47					13	5	2,428
Total	6	128	69	44	5		3	84	45				17	5	3,274
Embolismus:															
Hospitals and hospital ships		1		1											33
Endocarditis:															
Force afloat	1	3		3										1	94
Hospitals and hospital ships		2	1				1						1	1	122
Total	1	5	1	3			1						1	2	216
Myocarditis:															
Force afloat		4	1	2					3						49
Stations and yards		2					2								2
Hospitals and hospital ships	1		4	4										1	273
Total	1	6	5	6			2		3					1	324

Pericarditis:															
Stations and yards		2							2						2
Hospital and hospital ships			2										1	1	135
Total		2	2						2				1	1	137
Phlebitis:															
Force afloat		5	1	1					5						47
Stations and yards		3							3						3
Hospitals and hospital ships		2	8	6	2								2		315
Total		10	9	7	2				8				2		365
Thrombosis:															
Stations and yards		1					1								19
Total		1					1								19
Varix:															
Force afloat		33	3	9					27						156
Stations and yards	1	15	5	7				1	13						140
Hospitals and hospital ships	6	8	43	34	8	1		3					4	7	1,915
Total	7	56	51	50	8	1		4	40				4	7	2,211
Other diseases of subclass 2a:															
Pseudo-angina pectoris—															
Stations and yards		1						1							12
Tachycardia—															
Force afloat		1		1											7
Stations and yards		1							1						1
Hospitals and hospital ships			1		1										4
Total		2	1	1	1				1						12
Totals for Class No. 8, subclass No. 2a:															
Force afloat	3	115	15	55	2		2	2	69				2	1	884
Stations and yards	2	129	28	37	1		7	44	64			1	4	1	1,280
Hospitals and hospital ships	16	48	151	76	21	2	7	65					22	22	6,894
Total	21	292	194	168	24	2	16	111	133			1	28	24	9,058
SUBSIDIARY CLASS 2 B—*Lymphatics.*															
Lymphadenitis:															
Force afloat	3	132	14	104	1				38				2	4	1,861
Stations and yards		65	7	26					44					2	405
Hospitals and hospital ships	4	17	97	74	16			4					10	14	3,838
Total	7	214	113	204	17			4	82				12	20	6,104

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 8.—DISEASES OF THE NUTRITIVE APPARATUS—Contd.															
SUBSIDIARY CLASS 2 B—*Lymphatics*—Continued.															
Lymphangeitis:															
Force afloat		22	1	19					3				1		220
Stations and yards		8	1	7					1				1		48
Hospitals and hospital ships		1	4	4										1	253
Total		31	6	30					4				2	1	521
Splenypertrophia:															
Hospitals and hospital ships	1			1											115
Totals for class No. 8, subclass No. 2b:															
Force afloat	3	154	15	123	1				41				3	4	2,081
Stations and yards		73	8	33					45				1	2	453
Hospitals and hospital ships	5	18	101	79	16			4					10	15	4,206
Total	8	245	124	235	17			4	86				14	21	6,740
SUBSIDIARY CLASS 3.—*Diseases of the respiratory system.*															
Asthma:															
Force afloat		6	3	5				1	3						85
Stations and yards		14	1	5				2	8						107
Hospitals and hospital ships	1	2	15	9	2			3				1	3		366
Total	1	22	19	19	2			6	11			1	3		558

Bronchopneumonitis:															
Force afloat		9		3	1		1		3					1	92
Stations and yards		12	2	3					10				1		191
Hospitals and hospital ships		11	14	12	3		5					2	1	2	593
Total		32	16	18	4		6		13			2	2	3	876
Bronchitis acuta:															
Force afloat	7	371	9	346	11				26				2	2	1,878
Stations and yards	5	469	19	403	19				68					3	2,740
Hospitals and hospital ships	8	24	98	99	21			2			1		3	4	2,196
Total	20	864	126	848	51			2	94		1		5	9	6,814
Bronchitis chronica:															
Force afloat		86	17	34	2			1	62				1	3	693
Stations and yards	1	47	13	15				5	39			2			504
Hospitals and hospital ships	13	20	114	60	41			15			2	1	13	15	4,133
Total	14	153	144	109	43			21	101		2	3	14	18	5,330
Emphysema pulmonalis:															
Force afloat															
Stations and yards		2		1					1						9
Hospitals and hospital ships			1	1											27
Total		2	1	2					1						36
Hemoptysis:															
Force afloat		2					1		1						7
Stations and yards		6							6						6
Hospitals and hospital ships			7	2	5										166
Total		8	7	2	5		1		7						179
Laryngitis acuta:															
Force afloat	1	23		21	1				1					1	134
Stations and yards		43	1	33	1				9					1	202
Hospitals and hospital ships	1	1	9	8	2									1	204
Total	2	67	10	62	4				10					3	540
Laryngitis chronica:															
Force afloat		4	3	2					5						54
Stations and yards		14	4	6					11				1		40
Hospitals and hospital ships	2		16	13	1			2					2		435
Total	2	18	23	21	1			2	16				3		538

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 8.—DISEASES OF THE NUTRITIVE APPARATUS—Contd.															
SUBSIDIARY CLASS 3.—*Diseases of the respiratory system*—Contd.															
Pleuritis acuta:															
Force afloat	1	60	6	42					21				2	2	477
Stations and yards		45	1	23	2				18					3	287
Hospitals and hospital ships	5	11	39	33	14			1					1	6	1,538
Total	6	116	46	98	16			1	39				3	11	2,302
Pleuritis chronica:															
Force afloat		14		4	1				8					1	114
Stations and yards		12	1	2				1	9				1		37
Hospitals and hospital ships	3	9	22	13	3		1	8					4	5	957
Total	3	35	23	19	4		1	9	17				5	6	1,108
Pleuritis purulenta:															
Force afloat		2	2	1					3						46
Stations and yards		3							3						11
Hospitals and hospital ships	2	16	7	9	1	1	3						2	9	1,709
Total	2	21	9	10	1	1	3		6				2	9	1,766
Other diseases of subclass No. 3:															
Epistaxis—															
Force afloat		2		1					1						5
Stations and yards		3							3						4
Hospitals and hospital ships			4	1	3										39
Total		5	4	2	3				4						48

Pneumopyothorax—															
Hospitals and hospital ships		1		1											205
Totals for class No. 8, subclass No. 3:															
Force afloat	9	579	40	459	16		2	2	134				5	10	3,585
Stations and yards	6	670	42	491	22			8	185			2	3	7	4,147
Hospitals and hospital ships	35	95	346	261	96	1	9	31			3	4	29	42	12,568
Total	50	1,344	428	1,211	134	1	11	41	319		3	6	37	59	20,300
Totals for class No. 8:															
Force afloat	43	3,993	221	3,261	48		12	4	857				35	40	20,568
Stations and yards	20	2,936	177	2,186	42		8	62	791			3	23	18	14,465
Hospitals and hospital ships	151	384	1,789	1,569	286	4	27	122			4	16	131	165	60,708
Total	214	7,313	2,187	7,016	376	4	47	188	1,648		4	19	189	223	95,741
CLASS NO. 9.—DISEASES OF THE ORGANS OF LOCOMOTION.															
Ankylosis:															
Stations and yards		5		1		1		1	2						75
Hospitals and hospital ships	3	2	3	2				5					1		312
Total	3	7	3	3		1		6	2				1		387
Arthritis:															
Force afloat		58	8	38					26				1	1	420
Stations and yards		38	10	23	1			2	15				1	1	364
Hospitals and hospital ships	6	12	44	30	7	1		8					8	8	2,681
Total	6	108	62	91	8	1		10	41				10	10	3,465
Arthritis deformans:															
Stations and yards		1		1											6
Bursitis:															
Force afloat	1	30	4	25					8				2		228
Stations and yards		22	12	15				2	14				3		158
Hospitals and hospital ships	3	3	22	17	3	1		1					3	3	1,339
Total	4	55	38	57	3	1		3	22				8	3	1,725
Caries:															
Force afloat		2	1	1					1				1		11
Stations and yards		1							1						2
Hospitals and hospital ships		3	2	4										1	336
Total		6	3	5					2				1	1	349

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 9.—DISEASES OF THE ORGANS OF LOCOMOTION—Continued.															
Contractura:															
Force afloat		2							2						10
Stations and yards		2							2						1
Hospitals and hospital ships		1	6	2	1			1					2	1	232
Total		5	6	2	1			1	4				2	1	243
Ganglion:															
Force afloat	1	5	2	6					1					1	70
Stations and yards		2							2						3
Hospitals and hospital ships			3	1										2	52
Total	1	7	5	7					3					3	125
Gangræna:															
Force afloat		1		1											13
Hospitals and hospital ships	1	2		1	1		1								121
Total	1	3		2	1		1								134
Myalgia acuta:															
Force afloat	4	142	11	139	4				9				2	3	858
Stations and yards		86	5	73					17					1	377
Hospitals and hospital ships	5	5	33	26	10	1		2					2	2	1,192
Total	9	233	49	238	14	1		2	26				4	6	2,427

Myalgia chronica:															
Force afloat		25	5	15	1				13					1	171
Stations and yards	1	18	3	9					12				1		133
Hospitals and hospital ships	3	3	30	16	8			5				1	4	2	1,180
Total	4	46	38	40	9			5	25			1	5	3	1,484
Necrosis:															
Force afloat	1	3	1	1					4						129
Stations and yards		1							1						2
Hospitals and hospital ships	2	2	6	6				2					1	1	421
Total	3	6	7	7				2	5				1	1	552
Osteitis:															
Force afloat		3	1						4						9
Hospitals and hospital ships			6	3							1		1	1	439
Total		3	7	3					4		1		1	1	448
Osteomyelitis:															
Hospitals and hospital ships	1	2		1									1	1	178
Periostitis:															
Force afloat	1	22	3	16					8					2	276
Stations and yards		12		5					7						68
Hospitals and hospital ships	1		16	8	6								2	1	555
Total	2	34	19	29	6				15				2	3	899
Pes planus:															
Force afloat		66	9	25				2	42				3	3	585
Stations and yards	4	117	35	25				76	49				5	1	1,343
Hospitals and hospital ships	7	13	93	16	1			69					19	8	3,399
Total	11	196	137	66	1			147	91				27	12	5,327
Synovitis:															
Force afloat		89	15	83	1			1	16				1	2	808
Stations and yards		37	6	21				2	20						292
Hospitals and hospital ships	3	4	45	33	5			3					8	3	1,467
Total	3	130	66	137	6			6	36				9	5	2,567
Thecitis:															
Force afloat		11		11											58
Stations and yards		7	1	7									1		36
Hospitals and hospital ships	1							1							20
Total	1	18	1	18				1					1		114

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 9.—DISEASES OF THE ORGANS OF LOCOMOTION—Continued.															
Other diseases of this class:															
Fistula, spinal—															
Hospitals and hospital ships			1	1											286
Myositis:															
Force afloat		2		2											21
Myotonia:															
Force afloat		1		1											2
Totals for Class No. 9:															
Force afloat	8	462	60	364	6			3	134				10	13	3,669
Stations and yards	5	344	72	180	1	1		83	142				11	3	2,842
Hospitals and hospital ships	36	52	310	167	42	3	1	97			1	1	52	34	14,210
Total	49	858	442	711	49	4	1	183	276		1	1	73	50	20,721
CLASS NO. 10.—DISEASES OF THE SKIN AND CONNECTIVE TISSUE.															
Abscessus:															
Force afloat	11	552	20	510	2	1	1		54				6	9	3,664
Stations and yards	2	246	10	192	5				59				2		1,985
Hospitals and hospital ships	16	35	124	124	20	1	2	2				1	11	14	5,381
Total	29	833	154	826	27	2	3	2	113			1	19	23	11,030
Acne:															
Force afloat		5		3					2						11
Stations and yards		1							1						1
Hospitals and hospital ships	2		3	5											124
Total	2	6	3	8					3						136

Carbunculus:															
Force afloat	1	24		22					2					1	176
Stations and yards		16		13					3						86
Hospitals and hospital ships		1	5	5	1										205
Total	1	41	5	40	1				5					1	467
Cellulitis:															
Force afloat	6	168	10	162					18				3	1	1,652
Stations and yards	1	42	3	28	2				16						264
Hospitals and hospital ships	1	12	38	39	7								4	1	1,036
Total	8	222	51	229	9				34				7	2	2,952
Clavus:															
Force afloat		4		4											20
Stations and yards		8	3	8					3						51
Hospitals and hospital ships			3	2				1							112
Total		12	6	14				1	3						183
Cutis fissuræ:															
Force afloat		2	1	1					2						11
Stations and yards		3		2					1						11
Hospitals and hospital ships		1	4	3	1								1		57
Total		6	5	6	1				3				1		79
Dermatitis venenata:															
Force afloat		20	1	18					3						112
Stations and yards		26	2	22	1				5						133
Hospitals and hospital ships		2	8	8										2	315
Total		48	11	48	1				8					2	560
Dysidrosis:															
Force afloat		1		1											1
Hospitals and hospital ships		1		1											48
Total		2		2											49
Ecthyma:															
Force afloat		4		2					2						33
Hospitals and hospital ships			2	1	1										61
Total		4	2	3	1				2						94

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 10.—DISEASES OF THE SKIN AND CONNECTIVE TISSUE—Continued.															
Eczema:															
Force afloat		49	9	38	1				15				4		397
Stations and yards		32	7	21	1			1	13				1	2	416
Hospitals and hospital ships	1	5	30	25	6							1	2	2	1,442
Total	1	86	46	84	8			1	28			1	7	4	2,255
Erythema:															
Force afloat		7		6										1	30
Stations and yards		8		6					2						24
Hospitals and hospital ships		5	2	3									1	3	125
Total		20	2	15					2				1	4	179
Favus:															
Stations and yards		1							1						1
Hospitals and hospital ships			1		1										47
Total		1	1		1				1						48
Furunculus:															
Force afloat	2	256	14	262	1				9						1,316
Stations and yards	1	82	6	75					13					1	427
Hospitals and hospital ships		7	23	26	1									3	607
Total	3	345	43	363	2				22					4	2,350

Herpes simplex:															
Force afloat		8		8											27
Stations and yards		4		4											24
Total		12		12											51
Herpes zoster:															
Force afloat		25		23					1					1	91
Stations and yards		10		7					3						30
Hospitals and hospital ships	1	2	4	6										1	126
Total	1	37	4	36					4					2	247
Impetigo contagiosa:															
Stations and yards		5		1					3					1	68
Hospitals and hospital ships			4	3	1										91
Total		5	4	4	1				3					1	159
Lichen:															
Force afloat			1						1						2
Stations and yards		1							1						5
Hospitals and hospital ships	2	1	3	4	1								1		164
Total	2	2	4	4	1				2				1		171
Miliaria papulosa:															
Force afloat		3		2	1										20
Stations and yards		4		3	1										36
Total		7		5	2										56
Onychia:															
Force afloat		1		1											3
Stations and yards		2		2											10
Total		3		3											13
Paronychia:															
Force afloat	1	23		20	1				2					1	298
Stations and yards		5		4					1						19
Hospitals and hospital ships			3	3											113
Total	1	28	3	27	1				3					1	430
Pediculosis:															
Force afloat		12		12											14
Stations and yards		4		4											4
Hospitals and hospital ships	1			1											17
Total	1	16		17											35

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 10.—DISEASES OF THE SKIN AND CONNECTIVE TISSUE—Continued.															
Pemphigus:															
Stations and yards		1		1											19
Hospitals and hospital ships	1	1		1	1										96
Total	1	2		2	1										115
Perino:															
Force afloat		2	2	3					1						17
Hospitals and hospital ships			3					1					2		42
Total		2	5	3				1	1				2		59
Pityriasis:															
Force afloat		3	1	3					1						13
Stations and yards		3							2				1		3
Hospitals and hospital ships		1	3	3	1										198
Total		7	4	6	1				3				1		214
Prurigo:															
Force afloat		4							4						4
Hospitals and hospital ships			4		4										16
Total		4	4		4				4						20
Pruritis:															
Force afloat		2		2											6

Psoriasis:															
Force afloat		9	4	10					1				1	1	77
Stations and yards		4		2					2						4
Hospitals and hospital ships	1	1	7	6	1			1					1		577
Total	1	14	11	18	1			1	3				2	1	658
Scabies:															
Force afloat	3	226	16	186	2				54				2	1	1,392
Stations and yards	3	175	10	73	2				113						766
Hospitals and hospital ships	10	15	169	164	11	1							1	17	4,902
Total	16	416	195	423	15	1			167				3	18	7,060
Scleroderma:															
Force afloat		1		1											16
Trichophytosis:															
Force afloat	1	38	4	39					4						259
Stations and yards		126	11	122					14					1	871
Hospitals and hospital ships	2	12	18	28				1						3	808
Total	3	176	33	189				1	18					4	1,938
Ulcus:															
Force afloat	4	77	5	56	3				26				1		834
Stations and yards		37	8	22				1	20				1	1	491
Hospitals and hospital ships	7	5	50	33	11			3					6	9	2,495
Total	11	119	63	111	14			4	46				8	10	3,820
Unguis involutus:															
Force afloat	1	78		75					3					1	588
Stations and yards		68	1	60	2				7						539
Hospitals and hospital ships		1	10	11											264
Total	1	147	11	146	2				10					1	1,391
Urticaria:															
Force afloat		15	1	15					1						70
Stations and yards		6		5					1						14
Hospitals and hospital ships		3	3	6											110
Total		24	4	26					2						194
Verruca:															
Force afloat		6	1	5					2						38
Stations and yards		3		1					2						8
Hospitals and hospital ships		2	4	4	1									1	128
Total		11	5	10	1				4					1	174

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 10.—DISEASES OF THE SKIN AND CONNECTIVE TISSUE—Continued.															
Other diseases of this class:															
Bulla—															
Stations and yards		2		2											10
Fistula, inguinal—															
Stations and yards		1							1						3
Hospitals and hospital ships			1	1											23
Total		1	1	1					1						26
Ichthyosis—															
Force afloat		1							1						1
Stations and yards			1						1						1
Hospitals and hospital ships		1	2	3											23
Total		2	3	3					2						25
Keloid—															
Force afloat	1	1	1	2					1						31
Hospitals and hospital ships			1		1										137
Total	1	1	2	2	1				1						168
Papilloma—															
Force afloat		1		1											9
Totals for class No. 10:															
Force afloat	31	1,628	91	1,493	11	1	1		210				17	17	11,233
Stations and yards	7	926	62	680	14			2	288				5	6	6,272
Hospitals and hospital ships	45	114	532	519	71	2	2	9				2	30	56	19,890
Total	83	2,668	685	2,692	96	3	3	11	498			2	52	79	37,305

CLASS NO. 11.—VENEREAL DISEASES.

Adenitis inguinalis:															
Force afloat	11	424	23	317	14				104				7	16	6,416
Stations and yards	3	212	28	99	2				125				4	13	2,239
Hospitals and hospital ships	43	12	229	216	27	2							14	25	11,237
Total	57	648	280	632	43	2			229				25	54	19,892
Arthritis gonorrhoica:															
Force afloat	2	118	27	50	2				87				5	3	1,483
Stations and yards		65	27	22	1			6	62				1		574
Hospitals and hospital ships	31	31	177	101	18			62					33	25	11,052
Total	33	214	231	173	21			68	149				39	28	13,109
Chancroid:															
Force afloat	8	1,337	77	1,312	21	1			69				6	13	5,199
Stations and yards	5	569	39	535	7				60				7	4	1,718
Hospitals and hospital ships	10	23	129	102	45								4	11	5.630
Total	23	1.929	245	1,949	73	1			129				17	28	12,547
Epididymitis:															
Force afloat	10	256	22	245	1				29				4	9	3,298
Stations and yards		104	13	58	1			1	52					5	950
Hospitals and hospital ships	18	8	84	94	7			3					2	4	3,641
Total	28	368	119	397	9			4	81				6	18	7,889
Fistula urinalis:															
Force afloat		1							1						4
Hospitals and hospital ships		1	3	2										2	119
Total		2	3	2					1					2	123
Gonorrhœa:															
Force afloat	15	3,519	421	3,723	12			2	190				11	17	9,379
Stations and yards	5	1,971	218	2,000	6			8	167				3	10	4,140
Hospitals and hospital ships	54	168	396	480	38	10		16					13	61	20,427
Total	74	5,658	1,035	6,203	56	10		26	357				27	88	33,946
Ophthalmia gonorrhoica:															
Force afloat		10	1	5	1				4				1		104
Stations and yards	1	4		1	1				3						35
Hospitals and hospital ships	3	7	8	11	4								2	1	594
Total	4	21	9	17	6				7				3	1	733

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.									Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 11.—VENEREAL DISEASES—Continued.															
Orchitis:															
Force afloat	6	199	26	183	1	......	......	......	39	......	......	......	6	2	2,248
Stations and yards	1	98	12	65	1	......	......	1	43	......	......	......	......	1	829
Hospitals and hospital ships	6	9	80	75	11	......	......	2	......	......	......	......	1	6	3,185
Total	13	306	118	323	13	......	......	3	82	......	......	......	7	9	6,262
Prostatitis:															
Force afloat	1	12	3	9	......	......	......	......	5	......	......	......	1	1	165
Stations and yards	1	6	1	4	......	......	......	......	3	......	......	......	......	1	83
Hospitals and hospital ships	3	......	9	7	4	......	......	......	......	......	......	......	......	1	522
Total	5	18	13	20	4	......	......	......	8	......	......	......	1	3	770
Syphilis:															
Force afloat	11	948	547	817	4	......	......	3	664	......	......	......	8	10	6,370
Stations and yards	7	442	234	212	2	......	......	21	435	......	......	......	8	5	3,577
Hospitals and hospital ships	136	275	1,176	1,226	72	5	2	58	......	2	1	1	86	134	56,263
Total	154	1,665	1,957	2,255	78	5	2	82	1,099	2	1	1	102	149	66.210
Urethræ strictura:															
Force afloat	......	26	5	15	......	......	......	......	15	......	......	......	1	......	90
Stations and yards	......	17	6	11	1	......	......	1	9	......	......	......	1	......	313
Hospitals and hospital ships	2	4	28	24	4	......	......	1	......	......	......	......	4	1	1,028
Total	2	47	39	50	5	......	......	2	24	......	......	......	6	1	1.431

Verruca acuminata:															
Force afloat		33	1	25					8					1	154
Stations and yards		13	1	10					4						65
Hospitals and hospital ships		2	13	12	2								1		328
Total		48	15	47	2				12				1	1	547
Totals for Class No. 11:															
Force afloat	64	6,883	1,153	6,701	56	1		5	1,215				50	72	34,910
Stations and yards	23	3,501	579	3,017	22			38	963				24	39	14,523
Hospitals and hospital ships	306	540	2,332	2,350	232	17	2	142		2	1	1	162	269	114,026
Total	393	10,924	4,064	12,068	310	18	2	185	2,178	2	1	1	236	380	163,459
CLASS No. 12.—DISEASES OF THE GENITO-URINARY APPARATUS (NONVENEREAL).															
Balanitis:															
Force afloat		18		18											102
Stations and yards		10		8					2						14
Hospitals and hospital ships			2	2											28
Total		28	2	28					2						144
Calculus:															
Stations and yards		4	1	3					1			1			47
Hospitals and hospital ships	1		2	1	1							1			180
Total	1	4	3	4	1				1			2			227
Cystitis:															
Force afloat	1	36	4	25	2				18				1		372
Stations and yards		16	2	7				1	10						100
Hospitals and hospital ships	5	12	27	23	5			6				1	5	4	1,158
Total	6	64	33	55	7			7	23			1	6	4	1,630
Diuresis:															
Stations and yards		1		1											6
Enuresis:															
Force afloat		13	2	4				3	7					1	98
Stations and yards		9	3	2				5					4	1	77
Hospitals and hospital ships	2	3	10	1				10					3	1	483
Total	2	25	15	7				18	7				7	3	658
Glandulæ prostatæ hypertrophia:															
Force afloat		2		1					1						5
Stations and yards		1							1						1
Hospitals and hospital ships			2	2											51
Total		3	2	3					2						57

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 12.—DISEASES OF THE GENITO-URINARY APPARATUS (NONVENEREAL)—Continued.															
Hæmaturia:															
Force afloat		10	2	8					4						76
Stations and yards		7	1	3					3				2		68
Hospitals and hospital ships	1		9	7									2	1	329
Total	1	17	12	18					7				4	1	473
Hydrocele:															
Force afloat		24	2	14					12						181
Stations and yards		13	1	6					7				1		101
Hospitals and hospital ships		10	20	24	2									4	897
Total		47	23	44	2				19				1	4	1.179
Nephritis acuta:															
Force afloat	1	23		9			1		14						202
Stations and yards		8	3	5				1	2				3		66
Hospitals and hospital ships	1	5	19	7	7		1	3					3	4	934
Total	2	36	22	21	7		2	4	16				6	4	1,202
Nephritis chronica:															
Force afloat		17			1				16						109
Stations and yards	2	18	21	12			2	6	18			1	2		563
Hospitals and hospital ships	5	21	39	17	2		5	18				2	14	7	2,032
Total	7	56	60	29	3		7	24	34			3	16	7	2,704

Nephrolithiasis:															
Force afloat		7	2	5					3					1	35
Stations and yards		3	1	2					1					1	19
Hospitals and hospital ships		2	8	6	2								2		137
Total		12	11	13	2				4				2	2	191
Nephroptosis:															
Force afloat		4		2					2						17
Stations and yards		2							2						2
Hospitals and hospital ships			4	2	1									1	57
Total		6	4	4	1				4					1	76
Paraphimosis:															
Force afloat	1	4		5											56
Stations and yards	1	5		3					3						36
Hospitals and hospital ships	1		3	3	1										137
Total	3	9	3	11	1				3						229
Perinephritis:															
Stations and yards		1		1											12
Phimosis:															
Force afloat	3	160	3	149	2				12				2	1	910
Stations and yards	3	98	6	70	3			2	27				3	2	660
Hospitals and hospital ships	2	8	39	43	2	1							1	2	883
Total	8	266	48	262	7	1		2	39				6	5	2,453
Pyelitis:															
Force afloat		2	1						3						73
Stations and yards	1	4	3	4				1	1				2		107
Hospitals and hospital ships		2	4	4									1	1	338
Total	1	8	8	8				1	4				3	1	518
Urethritis simplex:															
Force afloat		2		2											2
Stations and yards		5		5											18
Total		7		7											20
Urinæ incontinentia:															
Force afloat		2	1						1				2		4
Stations and yards		3	1	1					2				1		223
Hospitals and hospital ships	2	1	4	1	1			5							167
Total	2	6	6	2	1			5	3				3		394

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 12.—DISEASES OF THE GENITO-URINARY APPARATUS (NONVENEREAL)—Continued.															
Urinæ retentio:															
Force afloat		1							1						2
Stations and yards		6		2					4						11
Hospitals and hospital ships		2	5	6	1										203
Total		9	5	8	1				5						216
Urinæ suppressio:															
Force afloat		2	1	1					1				1		10
Stations and yards		1		1											6
Hospitals and hospital ships		1	1	1			1								17
Total		4	2	3			1		1				1		33
Varicocele:															
Force afloat		116	5	52					69						944
Stations and yards		85	7	11				6	70				5		296
Hospitals and hospital ships	14	26	139	160	7								1	11	4,906
Total	14	227	151	223	7			6	139				6	11	6,146
Other diseases of this class:															
Albuminuria—															
Force afloat		2		1					1						6
Hospitals and hospital ships			1	1											41
Total		2	1	2					1						47

Anuria—															
Stations and yards		1							1						4
Hospitals and hospital ships			1		1										1
Total		1	1		1				1						5
Atrophied testicle—															
Force afloat		1							1						1
Hospitals and hospital ships			1	1											18
Total		1	1	1					1						19
Bacteriuria—															
Hospitals and hospital ships		1		1											29
Chyluria—															
Hospitals and hospital ships	1			1											4
Colica, renal—															
Hospitals and hospital ships			1	1											29
Cryptorchidism—															
Force afloat		1							1						2
Hospitals and hospital ships			1	1											52
Total		1	1	1					1						54
Epididymitis (nonvenereal)—															
Force afloat		1		1											14
Stations and yards		1		1											11
Total		2		2											25
Hypospadias—															
Force afloat		1							1						1
Stations and yards		1						1							9
Hospitals and hospital ships			1					1							16
Total		2	1					2	1						26
Lithuria—															
Force afloat		1		1											9
Orchitis (nonvenereal)—															
Force afloat		10	1	9					1				1		76
Stations and yards		12		10					1				1		102
Hospitals and hospital ships		1	2	3											267
Total		23	3	22					2				2		445

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 12.—DISEASES OF THE GENITO-URINARY APPARATUS (NONVENEREAL)—Continued.															
Other diseases of this class—Continued.															
Priapism—															
Force afloat		1							1						9
Hospitals and hospital ships			1											1	6
Total		1	1						1					1	15
Prostatitis (nonvenereal)—															
Hospitals and hospital ships		1		1											78
Pyonephrosis—															
Hospitals and hospital ships		1		1											44
Uræmia—															
Hospitals and hospital ships			1				1								1
Totals for Class No. 12:															
Force afloat	6	461	24	307	5		1	3	165				7	3	3,316
Stations and yards	7	315	50	158	3		2	23	156			2	24	4	2,559
Hospitals and hospital ships	35	97	347	321	33	1	8	43				4	32	37	13,523
Total	48	873	421	786	41	1	11	69	321			6	63	44	19,398
CLASS No. 13.—CYSTS AND NEW GROWTHS.															
Adenoma:															
Force afloat		5							5						7
Stations and yards		3		1					1				1		9
Hospitals and hospital ships	1	2	6	5	2								1	1	175
Total	1	10	6	6	2				6				2	1	191

Angeioma:															
Force afloat			1						1						8
Hospitals and hospital ships		1	2										2	1	214
Total		1	3						1				2	1	222
Carcinoma:															
Hospitals and hospital ships	1	1					1							1	22
Chondroma:															
Force afloat		2		1					1						3
Stations and yards		2							2						16
Hospitals and hospital ships		1	3	3										1	269
Total		5	3	4					3					1	288
Cystis:															
Force afloat	1	21	1	20					2					1	99
Stations and yards		8		4					4						25
Hospitals and hospital ships		3	7	7	1			1						1	548
Total	1	32	8	31	1			1	6					2	672
Epithelioma:															
Force afloat		1							1						1
Stations and yards		2							2						4
Hospitals and hospital ships	1	1	3	4										1	483
Total	1	4	3	4					3					1	488
Fibroma:															
Force afloat		7	1	4					4						54
Stations and yards		2	2						4						3
Hospitals and hospital ships			9	1	4								1	3	482
Total		9	12	5	4				8				1	3	539
Lipoma:															
Force afloat		12	1	6	1				6						35
Stations and yards		3		2					1						4
Hospitals and hospital ships		2	7	7									2		146
Total		17	8	15	1				7				2		185
Myxoma:															
Force afloat		1							1						3
Stations and yards		4							4						7
Hospitals and hospital ships			5	5											71
Total		5	5	5					5						81

TABLE NO. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 13.—CYSTS AND NEW GROWTHS—Continued.															
Osteoma:															
Force afloat		2							2						2
Stations and yards		3	1						4						6
Hospitals and hospital ships	2	1	6	4	2			1						2	292
Total	2	6	7	4	2			1	6					2	300
Sarcoma:															
Stations and yards		1	1						2						30
Hospitals and hospital ships	1	3	2	2		1	1						2		307
Total	1	4	3	2		1	1		2				2		337
Other diseases of this class:															
Adenoids—															
Stations and yards		1							1						1
Hospitals and hospital ships			1											1	19
Total		1	1						1					1	20
Hæmatoma—															
Force afloat		1		1											8
Neuro-fibroma—															
Force afloat		1		1											1
New Growth—															
Force afloat		1		1											7
Hospitals and hospital ships	1			1											93
Total	1	1		2											100

Steatoma—															
Stations and yards		1		1											1
Totals for class No. 13:															
Force afloat	1	54	4	34	1				23					1	228
Stations and yards		30	4	8					25				1		106
Hospitals and hospital ships	7	15	51	39	9	1	2	2					8	12	3,121
Total	8	99	59	81	10	1	2	2	48				9	13	3,455
CLASS NO. 14.—INJURIES.															
Abrasio:															
Force afloat		15		15											108
Stations and yards		13		13											61
Total		28		28											169
Ambustio ex calore:															
Force afloat	8	191	1	166			8		18				3	5	1,590
Stations and yards		32	3	32			2		1						393
Hospitals and hospital ships	2	3	19	16	1		2	1				1	2	1	805
Total	10	226	23	214	1		12	1	19			1	5	6	2,788
Ambustio ex electricitate:															
Force afloat		6		6											16
Ambustio ex frigore:															
Force afloat	1				1										19
Stations and yards		1		1											14
Total	1	1		1	1										33
Ambustio ex venenis:															
Force afloat		16		14					2						195
Stations and yards		4		4											35
Hospitals and hospital ships			2	2											89
Total		20	2	20					2						319
Ambustio ex X-radiore:															
Stations and yards		2							2						7
Hospitals and hospital ships	1		2	1	1									1	172
Total	1	2	2	1	1				2					1	179
Asphyxia:															
Force afloat		13		4			5		4						20
Stations and yards		7		2			4		1						15
Hospitals and hospital ships		1	6	4			1					1	1		85
Total		21	6	10			10		5			1	1		120

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 14.—INJURIES—Continued.															
Asphyxia ex submersione:															
Force afloat		23					23								23
Stations and yards		15		1			14								16
Hospitals and hospital ships		1					1								1
Total		39		1			38								40
Cartilaginis intra-articularis dislocatio:															
Force afloat		8	2	2					8						50
Stations and yards		2	1	1					1				1		11
Hospitals and hospital ships	1	1	9	7				1					3		318
Total	1	11	12	10				1	9				4		379
Concussio:															
Force afloat	1	40	1	30			1		10					1	214
Stations and yards		15	1	13			1		2						57
Hospitals and hospital ships			14	11	1		1							1	372
Total	1	55	16	54	1		3		12					2	643
Contusio:															
Force float	7	537	13	511	6				27				4	9	3,450
Stations and yards	4	175	9	156	1				30					1	994
Hospitals and hospital ships	4	9	60	55	5			1					3	9	1,706
Total	15	721	82	722	12			1	57				7	19	6,150

Deformitas:															
Force afloat		92	9	25	1			3	68					4	604
Stations and yards		117	19	23				54	56				3		874
Hospitals and hospital ships	14	37	136	99	11	1		42					17	17	6,729
Total	14	246	164	147	12	1		99	124				20	21	8,207
Dislocatio:															
Force afloat	2	65	6	54				1	16					2	660
Stations and yards		34	2	28				1	5					2	313
Hospitals and hospital ships	5	6	33	24	5			3					7	5	1,111
Total	7	105	41	106	5			5	21				7	9	2,084
Erythema solare:															
Force float		17		17											59
Stations and yards		2		2											13
Total		19		19											72
Fractura:															
Force afloat	19	406	26	298	1		6		129				9	8	6,132
Stations and yards	2	170	14	94	1		3	2	76				4	6	2,157
Hospitals and hospital ships	31	27	217	166	23		5	16				1	23	41	12,347
Total	52	603	257	558	25		14	18	205			1	36	55	20,636
Hernia:															
Force float	1	199	35	49				1	179			1	4	1	1,123
Stations and yards	2	137	35	45	1			20	104				3	1	1,285
Hospitals and hospital ships	49	27	301	259	21	1		26				10	25	35	13,157
Total	52	363	371	353	22	1		47	283			11	32	37	15,565
Ictus electricus:															
Force afloat		1		1											1
Membri clades:															
Force afloat		14	1	8					3				3	1	282
Stations and yards		3	4	3				2	2						162
Hospitals and hospital ships	3	21	16	13				20					6	1	1,089
Tota	3	38	21	24				22	5				9	2	1,533
Musculi ruptio:															
Force afloat		4		3					1						50
Hospitals and hospital ships			2	1										1	36
Total		4	2	4					1					1	86

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 14.—INJURIES—Continued.															
Solis ictus:															
Force afloat		3		3											9
Stations and yards		3	1	2				1					1		15
Total		6	1	5				1					1		24
Stremma:															
Force afloat	6	505	11	485	2				25				1	9	3,136
Stations and yards	3	331	9	281	5				47				4	6	1,919
Hospitals and hospital ships	7	16	74	82	8	1		2				1	1	2	2,450
Total	16	852	94	848	15	1		2	72			1	6	17	7,505
Virium defectio:															
Force afloat		4		2			1		1						16
Stations and yards		1					1								1
Hospitals and hospital ships			1	1											58
Total		5	1	3			2		1						75
Visceris ruptio:															
Force afloat		5					3		2						13
Stations and yards		2					1		1						2
Hospitals and hospital ships		1	2	2			1								87
Total		8	2	2			5		3						102
Vulnus contusum:															
Force afloat	6	130	2	131					4				1	2	864
Stations and yards		37		30					3				2	2	308
Hospitals and hospital ships	1	6	7	10	2	1								1	227
Total	7	173	9	171	2	1			7				3	5	1,399

Vulnus incisum:															
Force afloat:	1	127	3	117			2		11					1	811
Stations and yards	1	54	1	43			1		6				5	1	494
Hospitals and hospital ships	1	3	19	14	1	1	1						2	4	650
Total	3	184	23	174	1	1	4		17				7	6	1,955
Vulnus infectum:															
Force afloat	2	282	2	261	1				18				4	2	2,260
Stations and yards	2	88	2	74	1				15				1	1	799
Hospitals and hospital ships	8	10	35	38	5			1					1	8	1,865
Total	12	380	39	373	7			1	33				6	11	4,924
Vulnus laceratum:															
Force afloat	6	456	6	406	3		3		40				4	12	4,499
Stations and yards	3	125	5	103	1			1	24				2	2	1,128
Hospitals and hospital ships	8	8	66	40	14		1	3					7	17	2,920
Total	17	589	77	549	18		4	4	64				13	31	8,547
Vulnus punctum:															
Force afloat		30	1	30	1										205
Stations and yards		24	1	22				1	2						160
Hospitals and hospital ships		1	2	3											18
Total		55	4	55	1			1	2						383
Vulnus sclopeticum:															
Force afloat		22	1	6			8		8				1		97
Stations and yards		34	4	10			9		16				2	1	331
Hospitals and hospital ships	8	1	24	15	3		3	7					3	2	1,817
Total	8	57	29	31	3		20	7	24				6	3	2,245
Other diseases of this class:															
Adhesions, abdominal—															
Force afloat		1							1						12
Hospitals and hospital ships			1					1							28
Total		1	1					1	1						40
Amputation—															
Force afloat		1		1											15
Hospitals and hospital ships		1		1											40
Total		2		2											55
Bubonocele—															
Stations and yards		1		1											1

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 14.—INJURIES—Continued.															
Other diseases of this class—Continued.															
Mammarum hypertrophia idiopathica—															
Force afloat		1							1						12
Hospitals and hospital ships			1	1											16
Total		1	1	1					1						28
Urethræ ruptio—															
Hospitals and hospital ships	1		1				1							1	79
Totals for class No. 14:															
Force afloat	60	3,214	120	2,645	16		60	5	576			1	34	57	26,545
Stations and yards	17	1,429	111	984	10		36	82	394				28	23	11,565
Hospitals and hospital ships	144	180	1,050	865	101	5	17	124				14	101	147	48,272
Total	221	4,823	1,281	4,494	127	5	113	211	970			15	163	227	86,382
CLASS No. 15. EXTRANEOUS BODIES.															
Corpus extraneum:															
Force afloat		40	1	32	1				8						134
Stations and yards		8		4					4						59
Hospitals and hospital ships			12	10										2	178
Total		48	13	46	1				12					2	371
CLASS No. 16.—POISONS.															
Alcoholismus:															
Force afloat	1	127	10	111	4		1		21					1	380
Stations and yards		124	6	94				1	34				1		326
Hospitals and hospital ships	7	16	57	62	6	1	2	4					2	3	738
Total	8	267	73	267	10	1	3	5	55				3	4	1,439

Venenum irritans:															
Force afloat		9		7					2						13
Stations and yards		4	1	3					1				1		11
Hospitals and hospital ships		1	3	4											63
Total		14	4	14					3				1		87
Venenum neuroticum:															
Force afloat		106	3	85			6	1	17						338
Stations and yards		14	2	10			1	1	4						94
Hospitals and hospital ships		4	23	20	2			2					2	1	409
Total		124	28	115	2		7	4	21				2	1	841
Vulnus venenatum:															
Force afloat		7		5					2						21
Stations and yards		6		3					3						42
Hospitals and hospital ships			5	4	1										97
Total		13	5	12	1				5						160
Other diseases of this class:															
Typhoid prophylaxis—															
Force afloat		1	1	1									1		2
Stations and yards		12	1	11					1				1		20
Total		13	2	12					1				2		22
Totals for Class No. 16:															
Force afloat	1	250	14	209	4		7	1	42				1	1	754
Stations and yards		160	10	121			1	2	43				3		493
Hospitals and hospital ships	7	21	88	90	9	1	2	6					4	4	1,328
Total	8	431	112	420	13	1	10	9	85				8	5	2,575
CLASS NO. 17.—FEIGNED DISEASES.															
Achromatopsia:															
Hospitals and hospital ships		1		1											2
Amaurosis:															
Hospitals and hospital ships		1		1											3
Amblyopia:															
Hospitals and hospital ships		1		1											2
Myopia:															
Hospitals and hospital ships		2		2											4
Mental:															
Hospitals and hospital ships			1	1											4

TABLE No. 4.—*Detailed statement of disease and injury for 1911 (Navy nomenclature)*—Continued.

Nomenclature.	Taken up as—			Disposition.									Continued to next year.	Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS No. 14.—INJURIES—Continued.															
Other diseases of this class—Continued.															
Mammarum hypertrophia idiopathica—															
Force afloat		1							1						12
Hospitals and hospital ships			1	1											16
Total		1	1	1					1						28
Urethræ ruptio—															
Hospitals and hospital ships	1		1				1							1	79
Totals for class No. 14:															
Force afloat	60	3,214	120	2,645	16		60	5	576			1	34	57	26,545
Stations and yards	17	1,429	111	984	10		36	82	394				28	23	11,565
Hospitals and hospital ships	144	180	1,050	865	101	5	17	124				14	101	147	48,272
Total	221	4,823	1,281	4,494	127	5	113	211	970			15	163	227	86,382
CLASS No. 15. EXTRANEOUS BODIES.															
Corpus extraneum:															
Force afloat		40	1	32	1				8						134
Stations and yards		8		4					4						59
Hospitals and hospital ships			12	10										2	178
Total		48	13	46	1				12					2	371
CLASS No. 16.—POISONS.															
Alcoholismus:															
Force afloat	1	127	10	111	4		1		21					1	380
Stations and yards		124	6	94				1	34				1		326
Hospitals and hospital ships	7	16	57	62	6	1	2	4					2	3	733
Total	8	267	73	267	10	1	3	5	55				3	4	1,439

Venenum irritans:														
Force afloat		9		7					2					13
Stations and yards		4	1	3					1				1	11
Hospitals and hospital ships		1	3	4										63
Total		14	4	14					3				1	87
Venenum neuroticum:														
Force afloat		106	3	85			6	1	17					338
Stations and yards		14	2	10			1	1	4					94
Hospitals and hospital ships		4	23	20	2			2				2	1	409
Total		124	28	115	2		7	4	21			2	1	841
Vulnus venenatum:														
Force afloat		7		5					2					21
Stations and yards		6		3					3					42
Hospitals and hospital ships			5	4	1									97
Total		13	5	12	1				5					160
Other diseases of this class:														
Typhoid prophylaxis—														
Force afloat		1	1	1								1		2
Stations and yards		12	1	11					1			1		20
Total		13	2	12					1			2		22
Totals for Class No. 16:														
Force afloat	1	250	14	209	4		7	1	42			1	1	754
Stations and yards		160	10	121			1	2	43			3		493
Hospitals and hospital ships	7	21	88	90	9	1	2	6				4	4	1,328
Total	8	431	112	420	13	1	10	9	85			8	5	2,575
CLASS NO. 17.—FEIGNED DISEASES.														
Achromatopsia:														
Hospitals and hospital ships		1		1										2
Amaurosis:														
Hospitals and hospital ships		1		1										3
Amblyopia:														
Hospitals and hospital ships		1		1										2
Myopia:														
Hospitals and hospital ships		2		2										4
Mental:														
Hospitals and hospital ships			1	1										4

Nomenclature.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
CLASS NO. 17.—FEIGNED DISEASES—Continued.															
Myalgia acuta:															
Stations and yards		1		1											2
Totals for class No. 17:															
Stations and yards		1		1											2
Hospitals and hospital ships		5	1	6											15
Total		6	1	7											17
CLASS NO. 18.															
No disease (held as suspects):															
Force afloat			1	1											29
Stations and yards		5		1					4						5
Hospitals and hospital ships			5	5											16
Total		5	6	7					4						50
Grand totals for all classes:															
Force afloat	263	20,810	1,990	17,511	209	2	92	44	4,715	1	1	5	236	247	125,867
Stations and yards	120	14,166	1,608	10,204	153	2	57	461	4,714	6	8	8	156	125	83,665
Hospitals and hospital ships	1,073	2,218	10,168	8,968	1,277	48	104	868		91	195	103	838	967	395,531
Total	1,456	37,194	13,766	36,683	1,639	52	253	1,373	9,429	98	204	116	1,230	1,339	605,063

TABLE NO. 5.—*Detailed statement of disease and injury for 1911 (International nomenclature.)*[1]

[For comparison, the total amount of disease and injury in the Navy during the year 1911, in terms of official English translation of the International Nomenclature is given.]

International No.	Official English translation of diseases and cause of death.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
		Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
1	Typhoid fever	37	222	204	162	41		15		169			25	23	28	14,024
4	Malaria	15	725	325	900	21	1			128			1	7	7	7,045
4A	Malarial cachexia		9	9	14				1	2				1		196
5	Smallpox		2	1	2					1						58
6	Measles	1	461	289	419	43				281				8		8,702
7	Scarlet fever	1	14	9	11	3				8					2	391
9	Diphtheria	4	36	19	25	9		3		18				1	3	1,151
10	Influenza	17	1,433	108	1,401	67				66				2	22	7,388
14	Dysentery	8	97	65	103	6	1			42			1	10	7	3,329
16	Yellow fever		1					1								1
18	Erysipelas		15	6	11	3				4				2	1	233
19	Other epidemic diseases	118	2,141	1,049	2,194	55	1		1	987				21	49	30,144
20	Purulent infection and septicæmia	13	389	44	376	8		5	2	37				6	12	5,275
28	Tuberculosis of the lungs	34	282	274	45	35		11	37	191		194	1	62	14	10,854
29	Acute miliary tuberculosis		6	3	1	1		3		2		1		1		79
34	Tuberculosis of other organs	2	19	15	6	2	2	1	4	11		2		6	2	1,142
37	Syphilis	154	1,665	1,957	2,255	78	5	2	82	1,099	2	1	1	102	149	66,210
38A	Soft chancre	80	2,577	525	2,581	116	3			358				42	82	32,439
38B	Gonococcus infection	159	6,634	1,567	7,185	114	10		103	709				89	150	64,263
44	Cancer and other malignant tumors of the skin	1	4	3	4					3					1	488
45	Cancer and other malignant tumors of other organs and of organs not specified	2	5	3	2		1	2		2				2	1	359
46	Other tumors	3	84	46	71	8			1	37				7	9	2,308
47	Acute articular rheumatism	19	314	230	325	30			12	152			2	24	18	10,391
48	Chronic rheumatism and gout	15	148	124	146	16			21	81			1	12	10	5,965
50	Diabetes	4	10	21	9	2		2	4	13			2	3		749
53	Leuchæmia	2				1		1								377
54	Anæmia, chlorosis	3	25	14	21			2	1	7			2	6	3	1,333
55	Other general diseases	2	46	12	39	1		1	8	7			2	1	1	860
56	Alcoholism	8	267	73	267	10	1	3	5	55				3	4	1,439
59	Other chronic poisonings		122	28	115	2		5	4	21				2	1	839

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[1] This table does not include the Naval Sanatorium for Tuberculosis at Las Animas, Colo., and hospitals for the insane.

International No.	Official English translation of diseases and cause of death.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
		Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
60	Encephalitis		2	1				1	1	1						181
61	Simple meningitis	2	7	6	3	3			1	5				2	1	519
61A	Cerebro-spinal fever		12	11	6	2		3	1	9			1		1	532
62	Locomotor ataxia	3	4	3	4	1			3	1				1		200
63	Other diseases of the spinal cord	2	6	3	1	1			4	2				2	1	786
64	Cerebral hemorrhage, apoplexia	1	2	2	1			1		1				1	1	200
66	Paralysis without specified cause	5	28	27	20	1			10	19				7	3	2,322
68	Other forms of mental alienation	14	185	165	33	18		2	50	111	95		4	38	13	5,705
69	Epilepsy	8	87	83	40	3	2		64	51				17	1	2,609
72	Chorea		2	1	2										1	19
72A	Hysteria		20	18	11	3			8	10				5	1	741
73B	Neuralgia and neuritis	6	161	95	154	14	1		12	58			3	15	5	4,770
74	Other diseases of the nervous system	19	361	203	305	31	1		48	121	1		19	44	13	8,058
75B	Trachoma	2	13	7	4	1			10	5				2		337
75C	Other diseases of the eyes and their annexa	22	785	396	706	49	3		86	277			4	39	39	15,384
76	Diseases of the ears	23	504	306	413	31	2	1	86	218			2	46	34	14,049
77	Pericarditis		2	2						2				1	1	137
78	Acute endocarditis	2	11	6	9			3		3				1	3	540
79	Organic diseases of the heart	6	136	75	48	5	1	5	88	46			1	17	6	3,475
80	Angina pectoris	1	9	9	5	3		2	2	6				1		213
81	Diseases of the arteries	1	8	3	5			5		2						93
82	Embolism and thrombosis		2		1			1								52
83	Diseases of the veins	44	622	450	613	34	1		12	404				21	31	16,251
84	Diseases of the lymphatic system	7	245	124	234	17			4	86				14	21	6,636
85	Hemorrhage; other diseases of the circulatory system	4	58	39	43	6			17	26				2	7	1,972
86	Diseases of the nasal fossæ	10	178	65	160	11	1	1	16	50				6	8	3,349
87	Diseases of the larynx	4	85	33	83	5			2	26				3	3	1,078
88	Diseases of the thyroid body		22	22	11	1			10	15				3	4	776
89	Acute bronchitis	20	864	126	848	51			2	94		1		5	9	6,814
90	Chronic bronchitis	14	153	144	109	43			21	101		2	3	14	18	5,330
91	Bronchopneumonia		32	16	18	4		6		13			2	2	3	876
92	Pneumonia	24	163	107	128	35		9		100		1	2	8	11	5,401
93	Pleurisy	11	172	78	127	21	1	4	10	62				10	26	5,176
96	Asthma	1	22	19	19	2			6	11			1	3		558
97	Pulmonary emphysema		2	1	2					1						36

98	Other diseases of the respiratory system		14	11	5	8		1		11						432
99A	Diseases of the teeth and gums		48	16	44	4			3	12				1		536
99B	Other diseases of the mouth and annexa		10	1	10					1						60
100	Diseases of the pharynx	33	2,956	367	2,973	61	1		1	272				10	38	17,541
102	Ulcer of the stomach	3	15	12	15	3		1		6				1	4	855
103	Other diseases of the stomach (cancer excepted)	12	346	114	336	23		2	5	74			1	21	10	4,399
105	Diarrhea and enteritis	2	809	116	793	25		1	1	92			2	7	6	4,150
106	Ankylostomiasis	1	111	4	110	2				4						527
107	Intestinal parasites		56	8	57	1				5					1	306
108	Appendicitis	44	491	406	491	36		10	10	313			7	37	37	16,326
109	Hernias, intestinal obstructions	53	371	377	358	24	1	2	47	286			12	34	37	15,922
110A	Diseases of the anus and fecal fistulas	4	58	56	57	7			2	42		1		5	4	2,743
110B	Other diseases of the intestines	2	184	19	174	5			5	15				5	1	895
111	Acute yellow atrophy of the liver		7		7											39
113	Cirrhosis of the liver		3	3	2	1		1		2						177
114	Biliary calculi	2	14	19	13	6				11				3	2	470
115	Other diseases of the liver	8	156	61	151	12		1	3	48				7	3	3,221
116	Diseases of the spleen	1			1											115
117	Simple peritonitis		3	1				2		1					1	32
118	Other diseases of the digestive system (cancer and tuberculosis excepted)	1	12	7	13					3			1	2	1	387
119	Acute nephritis	2	36	22	21	7		2	4	16				6	4	1,202
120	Bright's disease	7	60	62	32	3		8	24	35			3	17	7	2,737
122	Other diseases of the kidneys and annexa	2	35	25	34	1			1	16				7	3	1,142
123	Calculi of the urinary passages	1	16	14	17	3				5			2	2	2	418
124	Diseases of the bladder	10	104	59	72	9			30	38			1	16	7	2,898
125	Diseases of the urethra		7		7											20
126	Diseases of the prostate		3	2	3					2						57
127	Nonvenereal diseases of the male genital organs	4	121	39	117	4		1	2	32				3	5	2,382
142	Gangrene	1	4	1	3	1		1		1						224
143	Furuncle	4	386	48	403	3				27					5	2,817
144	Acute abscess	37	1,055	205	1,055	36	2	3	2	147			1	26	25	13,982
145A	Trichophytosis	3	177	34	189	1			1	19					4	1,986
145B	Scabies	16	416	195	423	15	1			167				3	18	7,060
145C	Other diseases of the skin and annexa	23	680	213	666	43			7	149			1	22	28	12,090
146	Diseases of the bones (tuberculosis excepted)	9	73	55	60	10			5	39		1		10	12	3,534
147	Diseases of the joints (tuberculosis and rheumatism excepted)	12	240	131	231	14	2		22	79				20	15	6,419
149	Other diseases of the organs of locomotion	30	570	276	439	28	2		159	172			1	47	28	11,785
150	Congential malformations	8	266	48	262	7	1		2	39				6	5	2,453
155	Suicide by poison		2					2								2
157	Suicide by hanging and strangulation		2					2								2
158	Suicide by drowning		2					2								2
159	Suicide by firearms		15					15								15
160	Suicide by cutting or piercing instruments		1					1								1
165A	Venomous bites and stings		13	5	12	1				5						160
165B	Other acute poisonings		27	6	26					4				3		109
167	Burns (conflagration excepted)	11	248	27	235	2		12	1	23			1	5	7	3,286

TABLE NO. 5.—*Detailed statement of disease and injury for 1911 (International nomenclature)*—Continued.

International No.	Official English translation of diseases and cause of death.	Taken up as—			Disposition.										Continued to next year.	Total number of sick days.
		Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed	Deserted.	Died.	Invalided from service.	Naval Hospital.	Hospital for the Insane.	Naval Hospital for Tuberculosis.	Sick leave.	Transferred.		
168	Absorption of deleterious gases (conflagration excepted)	......	19	6	10	......	......	8	......	5	......	......	1	1	......	118
169	Accidental drowning	......	37	......	1	......	......	36	......	......	......	......	......	......	......	38
170	Traumatism by firearms	8	42	29	31	3	......	5	7	24	......	......	......	6	3	2,230
171	Traumatism by cutting or piercing instruments	3	239	27	229	2	1	4	1	19	......	......	......	7	6	2,338
177A	Overexertion	......	5	1	3	......	......	2	......	1	......	......	......	......	......	75
178	Excessive cold	1	3	5	4	1	......	......	1	1	......	......	......	2	......	92
179	Effects of heat	......	107	10	105	1	......	1	1	7	......	......	......	2	......	495
181	Electricity (lightning excepted)	......	7	......	7	......	......	......	......	......	......	......	......	......	......	17
185A	Dislocations	8	116	53	116	5	......	......	6	30	......	......	......	11	9	2,463
185B	Sprains	16	852	94	848	15	1	......	2	72	......	......	1	6	17	7,505
185C	Fractures (cause not specified)	52	603	257	558	25	......	14	18	205	......	......	1	36	55	20,636
186	Other external violence	58	1,914	389	1,751	46	2	12	127	287	......	......	......	54	82	27,409
189A	Disease not specified or ill-defined	6	303	160	240	67	......	......	13	137	......	......	......	6	6	2,584
189B	No disease (feigned disease)	......	6	1	7	......	......	......	......	......	......	......	......	......	......	17
	Total	1,456	37,194	13,766	36,683	1,639	52	253	1,373	9,429	98	204	116	1,230	1,339	605,063

TABLE No. 6.—*Table showing common infectious and contagious diseases, the character and number of admissions during the calendar year 1911.*

FORCE AFLOAT.

Place.	Catarrhus epidemicus.	Diphtheria.	Febris cerebrospinalis.	Febris pneumonica.	Febris typhoides.	Malaria.	Morbilli and rubella.	Parotiditis epidemica.	Scarlatina.	Tuberculosis.	Variola.	Tonsillitis.	Chancroid.	Gonorrhea.	Syphilis.
Albany	....	....	....	2	....	9	....	....	....	1	....	18	22	30	5
Albatross	1	....	....	....	....	....	....	....	....	....	....	2	....	5	2
Alliance	1	....	....	....	....	8	....	....	....	....	....	2	....	....	....
Ammen	....	....	....	....	....	....	....	....	....	....	....	1	2	5	1
Amphitrite	....	....	....	....	1	18	....	....	....	....	....	2	1	1	1
Annapolis	....	....	....	....	....	....	....	....	....	....	....	....	1	7	....
Baltimore	....	....	....	....	1	2	....	....	....	2	....	1	9	11	4
Birmingham	....	....	....	2	1	1	....	7	1	....	....	20	10	7	6
Buffalo	3	....	....	....	....	....	4	7	....	....	....	5	1	34	3
Burrows	....	....	....	....	....	....	1	....	....	....	....	....	1	14	....
California	65	....	....	1	....	2	6	2	2	2	....	111	17	83	20
Callao	....	....	....	1	....	2	....	....	....	1	....	1	5	2	4
Castine	3	....	....	3	....	1	2	2	....	1	....	11	6	36	6
Celtic	....	....	....	1	2	....	....	....	....	1	....	2	4	24	7
Chester	1	....	....	....	2	4	....	2	....	....	....	10	16	30	5
Chicago	2	....	....	....	....	....	....	....	....	....	....	2	....	8	....
Cincinnati	....	....	....	....	....	....	....	....	....	....	....	4	4	15	3
Colorado	18	....	....	1	....	....	18	3	....	1	....	19	29	87	7
Connecticut	....	1	....	2	7	1	2	5	....	3	....	48	24	81	18
Culgoa	5	....	....	....	....	....	....	....	....	3	....	12	4	14	4
Delaware	52	1	....	2	4	7	10	8	....	4	....	97	58	103	23
Des Moines	19	....	....	....	1	3	1	12	....	2	....	41	6	38	7
Dixie	6	....	....	....	1	1	....	....	....	1	....	14	2	21	12
Dolphin	5	....	....	1	....	3	....	2	....	....	....	6	4	33	3
Drayton	1	....	....	....	....	....	....	....	....	1	....	4	1	13	1
Dubuque	....	....	....	....	1	....	1	....	....	....	....	8	13	....	3
Eagle	....	....	....	....	....	1	....	....	....	....	....	2	2	7	3
Elcano	....	....	....	....	1	1	....	....	....	....	....	2	4	12	3
Fish Hawk	....	....	....	....	....	....	....	....	....	....	....	3	2	5	1
Florida	7	....	....	1	....	1	....	....	....	....	....	18	17	46	2
Flusser	....	....	....	....	1	....	....	....	....	....	....	1	2	12	3
Franklin	1	....	....	4	55	5	111	117	....	12	....	18	85	341	51
Georgia	10	....	....	2	....	5	13	4	....	1	....	79	16	56	12
Glacier	2	....	....	....	....	....	4	....	....	....	....	11	3	19	1
Hancock	2	....	....	4	2	2	....	2	....	2	....	15	22	116	27
Helena	1	....	....	....	....	2	....	....	1	2	....	2	13	14	7
Hist	2	....	....	....	1	....	....	....	....	....	....	1	7	3	....
Idaho	5	....	....	4	3	2	1	....	....	2	....	10	36	102	24
Independence	9	1	....	2	....	3	7	....	....	1	....	14	9	55	18
Indiana	25	1	....	3	2	....	1	....	1	1	....	57	19	53	21
Iowa	25	....	....	2	1	2	1	12	....	3	....	42	20	64	22
Iris	3	....	....	....	....	....	....	1	....	3	....	6	11	38	8
Kansas	17	....	....	3	1	....	15	4	....	2	....	21	14	72	28
Lamson	....	....	....	....	....	....	....	....	....	1	....	....	6	12	1
Lancaster	23	....	....	4	....	11	12	1	....	4	....	74	25	181	32
Lebanon	....	....	....	....	....	1	....	....	....	....	....	....	4	10	....
Louisiana	3	....	....	2	5	17	21	9	....	3	....	72	53	73	28
Maine	2	....	....	....	....	....	4	11	....	....	....	30	7	44	7
Marietta	1	....	....	1	1	20	1	....	....	....	....	10	8	7	4
Maryland	4	....	....	2	....	....	1	6	....	3	....	15	9	40	13
Massachusetts	11	....	....	1	1	....	6	....	....	2	....	28	17	58	20
Mayflower	3	....	....	....	1	3	....	....	....	1	....	6	2	9	6
Mayrant	....	....	....	....	....	....	....	....	....	....	....	....	1	4	1
McCall	....	....	....	....	....	1	....	....	....	....	....	3	1	15	3
Michigan	45	....	....	....	1	2	2	12	....	2	....	55	10	46	33
Mindoro	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....
Minnesota	2	....	....	1	7	4	....	....	....	6	....	53	24	111	34
Mississippi	28	....	....	2	3	4	....	....	....	4	....	25	20	62	24
Missouri	5	....	....	4	....	1	2	19	....	1	....	38	34	92	16
Mohican	....	....	....	....	....	....	....	....	....	1	....	....	16	15	5
Monadnock	....	....	....	....	....	....	....	....	....	....	....	1	9	11	2
Monaghan	....	....	....	....	1	....	....	....	....	....	....	1	3	5	2
Montana	3	1	....	2	3	....	....	37	....	....	....	23	11	45	7
Monterey	....	....	....	....	....	....	....	1	....	1	....	1	9	28	4
Montgomery	5	2	....	1	3	....	....	....	1	....	....	11	3	6	1
Nashville	1	....	....	....	1	....	....	....	....	....	....	9	2	11	1
Nebraska	47	....	....	1	4	2	8	....	....	17	....	57	23	96	45
New Hampshire	3	....	....	....	5	12	10	5	2	3	....	23	21	74	27
New Jersey	11	....	....	1	....	2	6	5	....	....	....	66	19	86	18
New Orleans	2	....	....	....	....	1	1	....	....	1	....	5	17	50	12
North Carolina	3	....	....	1	4	2	1	....	....	2	....	14	22	30	18
North Dakota	....	....	....	....	3	3	5	4	....	4	....	25	15	62	13

FORCE AFLOAT—Continued.

Place.	Catarrhus epidemicus.	Diphtheria.	Febris cerebro-spinalis.	Febris pneumonica.	Febris typhoides.	Malaria.	Morbilli and rubella.	Parotiditis epidemica.	Scarlatina.	Tuberculosis.	Variola.	Tonsillitis.	Chancroid.	Gonorrhea.	Syphilis.
Ohio	1	2		2	1	3		2		2		23	13	40	20
Paducah	2			1		1	1			2		10	4	15	4
Pampanga												1	4	4	
Panther						1		1		1		11	5	7	8
Paragua						1								1	
Patterson														1	1
Paulding													2	6	5
Pennsylvania	1			8	1					1		3	13	44	13
Perkins										1			7	19	1
Petrel	6							3		1		10	17	30	2
Philadelphia	5			1		1		12		2		4	2	27	
Piscataqua								1					2	5	3
Pompey						1				2			24	12	2
Prairie						3				2		12	5	26	4
Preston						1				1		4	8	8	3
Princeton						2						6	4	13	1
Quiros						5							14	5	
Rainbow	1									1		2	25	16	2
Reid					2	1						4	8	14	4
Rhode Island	3	1		1	3	2	2	7		3		44	25	57	19
Roe	1						1			1		4	5	18	5
Salem	1					3						27	8	24	5
Samar						3				1		1	4	3	1
San Francisco												1	3	8	3
Saratoga						7	1			2		20	79	54	8
Scorpion	1	1			1							5	6	14	4
Smith													2	9	3
South Carolina	45			1	3	1	1	4		5		47	33	108	33
South Dakota	14			3		1	12	1		3		28	10	59	8
Southery	2	1		3		1	1	1		7		1	3	20	7
Sterett													9	14	7
Supply						2						4	11	29	4
Tacoma						42				1		4	7	22	2
Tallahassee												5	4	14	4
Tennessee	5			1	1	1		10		4		6	21	30	17
Terry							1							3	2
Texas				1									2	4	
Torpedo fleet:															
Asiatic										1		4	38	41	6
Atlantic reserve	1			1	2	13	2			2		6	15	34	5
Pacific	2	3				1	1	3		4		19	13	60	15
Trippe	1											5	3	11	3
Utah				2	3	4						41	10	30	8
Vermont	3									3		56	13	77	15
Vicksburg	2					1						10	13	11	2
Villalobos	1											2	10	11	4
Virginia	10	1	1	2	2	1	1	13		14		29	7	47	14
Wabash	8					1	3	6				12	12	67	9
Walke												3	3	4	1
Warrington							3					1	3	8	
Washington	8			3		5	6	4		3		33	18	68	27
West Virginia	42			4	5	3	4	11	1	1		66	11	55	11
Wheeling	2	1				7		3				3	7	12	8
Wilmington												1	20	14	3
Wisconsin	10					1	12	1		1		35	7	26	12
Wolverine	5				1									2	
Wompatuck						2								2	1
Yankton										1		1	2	12	
Yorktown	1					13				2		2	16	18	2

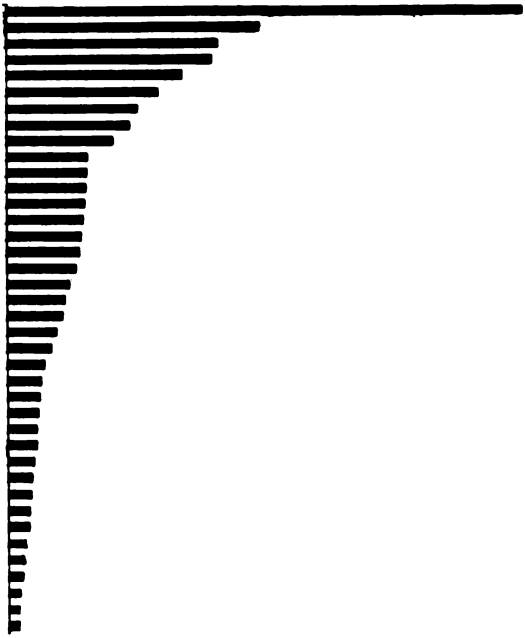
STATIONS AND YARDS.

Place.	Catarrhus epidemicus.	Diphtheria.	Febris cerebro-spinalis.	Febris pneumonica.	Febris typhoides.	Malaria.	Morbilli and rubella.	Parotiditis epidemica.	Scarlatina.	Tuberculosis.	Variola.	Tonsillitis.	Chancroid.	Gonorrhea.	Syphilis.
Annapolis Md. (academy)	235			3		12	3	10		2		111	26	70	30
Boston, Mass. (yard)	23			3		10		2				72	9	46	9
Cavite, P. I. (station)					3	29		1		1		3	44	43	23
Charleston, S. C. (yard)	1			1	3	7	1			1		5	24	13	9
Chicago, Ill. (station)			2	3	2	1		93		1		16	2	13	2
Culebra, P. R. (station)						13							1	1	
Dover, N. J. (magazine)	1													3	
Guantanamo Cuba (station)					3	2	1					5	4	21	2

STATIONS AND YARDS—Continued.

Place.	Catarrhus epidemicus.	Diphtheria.	Febris cerebrospinalis.	Febris pneumonica.	Febris typhoides.	Malaria.	Morbilli and rubella.	Parotiditis epidemica.	Scarlatina.	Tuberculosis.	Variola.	Tonsillitis.	Chancroid.	Gonorrhea.	Syphilis.
Guantanamo, Cuba (Camp Meyer)	....	....	....	....	6	2	9	2	....	3	....	12	6	39	9
Hawaii, Hawaii (station)	1	....	....	....	....	—	2	2	....	....	....	12	....	24	11
Hingham, Mass. (magazine)	....	....	....	....	....	....	....	....	....	....	....	....	1	5	1
Indian Head, Md. (proving ground)	1	....	....	....	....	2	....	....	....	....	....	....	1	3	2
Iona Island, N. Y. (magazine)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Key West, Fla. (station)	....	....	....	....	2	1	....	1	....	....	1	1	3	1	1
Mare Island, Cal. (yard)	13	....	....	....	....	1	4	2	....	1	....	6	6	50	17
New London, Conn. (station)	....	....	....	....	....	....	....	....	....	....	....	....	3	2	3
New Orleans, La. (station)	....	....	....	....	....	....	1	1	....	....	....	7	2	12	2
Newport, R. I.:															
Torpedo station	5	....	....	1	....	1	1	3	....	....	....	13	5	6	9
Training station	23	1	6	16	4	8	129	117	....	3	....	65	17	131	25
New York, N. Y.:															
Special duty	....	....	....	....	1	....	....	....	....	1	....	1	....	....	....
Yard	10	....	....	....	....	2	....	1	3	3	....	25	6	34	15
Norfolk, Va. (yard)	8	....	....	....	....	2	4	11	....	....	....	5	20	51	13
Olongapo, P. I. (station)	....	....	....	....	....	44	....	....	....	....	....	13	52	45	18
Panama Isthmian Canal Zone (Camp Elliott)	29	....	....	....	1	127	....	....	....	....	....	11	15	18	3
Peking, China (legation guard)	2	....	....	....	1	1	2	....	....	2	....	2	22	15	4
Pensacola, Fla. (yard)	....	....	....	....	....	....	....	....	....	....	....	....	1	3	1
Philadelphia, Pa.:															
Special duty	9	....	....	....	....	1	....	....	....	2	....	3	....	1	2
Yard	33	5	....	2	2	32	6	1	....	3	....	52	24	85	21
Port Royal, S. C. (station)	4	....	....	....	....	2	....	....	....	2	1	6	11	53	3
Portsmouth, N. H.:															
Prison	1	....	....	2	....	3	....	....	....	1	....	13	5	16	5
Yard	8	....	....	....	2	3	1	1	....	1	....	1	2	15	3
Puget Sound, Wash. (yard)	5	....	....	....	....	....	2	10	....	....	....	6	4	35	4
San Diego, Cal. (Camp Thomas)	....	....	....	....	....	....	3	....	....	1	....	2	1	11	1
San Francisco, Cal.:															
Special duty	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....
Training station	286	1	...	10	1	3	73	209	....	....	....	181	15	148	13
San Juan, P. R. (station)	....	....	....	....	....	....	....	....	....	....	....	1	10	10	2
Shanghai, China (marine expedition)	2	....	....	1	....	....	....	....	....	....	....	....	26	22	1
Tutuila, Samoa (station)	....	....	....	....	....	....	....	....	....	1	....	1	....	3	....
Washington, D. C.:															
Dispensary	24	....	....	2	....	1	....	....	....	1	....	10	1	....	....
Marine Barracks	7	1	....	....	....	21	2	2	....	....	....	14	2	20	3
Yard	....	....	....	....	2	29	....	....	....	....	....	16	12	26	15
Winthrop, Md. (Marine Corps rifle range)	....	....	....	....	....	8	1	....	....	....	....	....	2	6	....

Disease or injury.	No.	Relation by scale.
Gonorrhea	5,658	
Tonsillitis	2,767	
Wounds	2,314	
Skin diseases	2,252	
Chancroid	1,929	
Syphilis	1,665	
Epidemic catarrh	1,438	
Pleurisy	1,344	
Bronchial affections	1,172	
Adenitis and lymphadenitis	895	
Mumps	887	
Sprains	852	
Rheumatic affections	849	
Dengue	832	
Mental and nervous diseases	812	
Eye affections	798	
Malaria	736	
Epididymitis and orchitis	674	
Measles	631	
Fractures	603	
Diarrheal affections	534	
Appendicitis	491	
Scabies	416	
Hernia	363	
Ear affections (middle ear)	345	
Hemorrhoids	329	
Gastric catarrh	317	
Tuberculosis	307	
Heart affections	292	
Alcoholism	267	
Burns	255	
Varicocele	227	
Typhoid fever	222	
Flat feet	196	
Liver affections	173	
Pneumonia	163	
Neurasthenia	121	
Dysenteric affections	107	
Heat affections	107	



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[1] This table does not include the Naval Sanatorium for Tuberculosis at Las Animas, Colo., and hospitals for the insane.

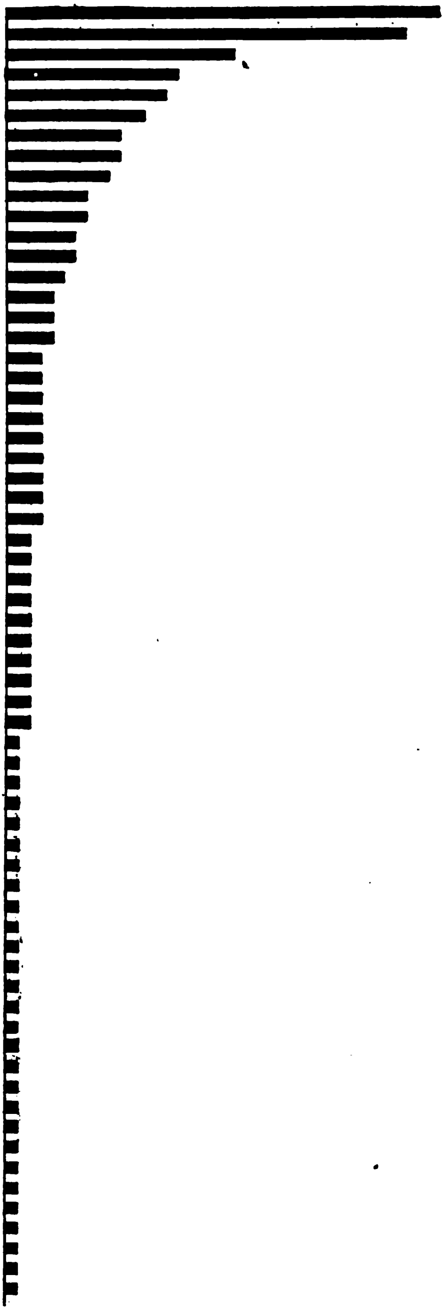
TABLE No. 10.—*Mortuary record for the Navy and Marine Corps for the year 1911.*

Cause.	Number of cases.			
	Force afloat.	Stations and yards.	Hospitals and hospital ships.	Total.
Abscessus (liver)	1	....	2	3
Alcoholismus	1	....	2	3
Ambustio ex calore (burns)	8	2	2	12
Anæmia perniciosa	....	....	1	1
Anæmia simplex	....	....	1	1
Aneurysma	1	1	2	4
Angina pectoris	....	2	....	2
Apoplexia	1	....	....	1
Appendicitis	4	1	5	10
Arteriosclerosis	....	....	1	1
Asphyxia (5 gas, 1 anæsthetic, 3 hanging, 1 suffocation)	5	4	1	10
Asphyxia ex submersione (drowning)	23	14	1	38
Bronchopneumonitis	1	....	5	6
Carcinoma	....	....	1	1
Catarrhus gastricus chronicus	....	....	1	1
Catarrhus intestinalis acutus	1	....	....	1
Concussio	1	1	1	3
Cordis dilatatio	....	1	1	2
Cordis valvularum morbus	1	....	2	3
Dementia	....	....	[1] 6	[1] 6
Diabetes mellitus	1	....	1	2
Diphtheria	2	....	1	3
Encephalitis	....	....	1	1
Endocarditis	....	....	1	1
Febris cerebrospinalis	....	....	3	3
Febris flava	1	....	....	1
Febris pneumonica	2	1	6	9
Febris typhoides	1	2	12	15
Fractura (10 skull, 4 spinal)	6	3	5	14
Gangræna	....	....	1	1
Gastrectasis	1	....	....	1
Hemoptysis	1	....	....	1
Hepatitis chronica	....	....	1	1
Hepatitis suppurativa	1	....	....	1
Leucocythæmia	....	....	1	1
Myocarditis	....	2	....	2
Nephritis acuta	1	....	1	2
Nephritis chronica	....	2	5	7
Obstructio intestinalis	1	....	1	2
Otitis media	....	....	1	1
Peritonitis	....	....	2	2
Pleuritis chronica	....	....	1	1
Pleuritis purulenta	....	....	3	3
Prostratio thermica	....	1	....	1
Pyæmia	....	....	2	2
Sarcoma	....	....	1	1
Speticæmia	....	2	1	3
Sinusitis (frontal)	....	....	1	1
Syphilis (cerebral)	....	....	2	2
Thrombosis (heart)	....	1	....	1
Tuberculosis miliaris acuta	....	....	3	3
Tuberculosis pneumonica	2	4	[2] 29	[2] 35
Tuberculosis of other parts (kidney)	....	....	1	1
Ulcus gastricum	....	....	1	1
Uræmia	....	....	1	1
Urethræ ruptio	....	....	1	1
Urinæ suppressio	....	....	1	1
Venenum neuroticum (poisons)	6	1	....	7
Vincent's angina	1	....	....	1
Virium defectio (exhaustion)	1	1	....	2
Visceris ruptio (2 heart, 1 liver, 2 spleen)	3	1	1	5
Vulnus incisum (1 throat, 3 multiple)	2	1	1	4
Vulnus laceratum (multiple, railroad)	3	....	1	4
Vulnus sclopeticum (gunshot)	8	9	3	20
Total	92	57	132	281

[1] Dementia, 4 cases, Government Hospital for the Insane.
[2] Tuberculosis, 24 cases, Naval Sanatorium, Las Animas, Colo.

TABLE No. 11.—*Deaths, Navy and Marine Corps, 1911.*

Cause.	No.	Relation by scale.
Asphyxia ex submersione	38	
Tuberculosis pneumonica	[1]35	
Vulnus sclopeticum	20	
Febris typhoides	15	
Fractura (skull 10, spinal 4)	14	
Ambustio ex calore	12	
Appendicitis	10	
Asphyxia (hanging and gas)	10	
Febris pneumonica	9	
Nephritis chronica	7	
Venenum neroticum	7	
Bronchopneumonitis	6	
Dementia	[2]6	
Visceris ruptio (1 heart)	5	
Aneurysma	4	
Vulnus incisum	4	
Vulnus laceratum	4	
Abscessus (liver)	3	
Alcoholismus	3	
Concussio	3	
Cordis valvularum morbus	3	
Diphtheria	3	
Febris cerebro-spinalis	3	
Pleuritis purulenta	3	
Septicemia	3	
Tuberculosis miliaris acuta	3	
Angina pectoris	2	
Cordis dilatatio	2	
Diabetes mellitus	2	
Myocarditis	2	
Nephritis acuta	2	
Obstructio intestinalis	2	
Peritonitis	2	
Pyemia	2	
Syphilis (cerebral)	2	
Virium defectio (exhaustion)	2	
Anemia perniciosa	1	
Anemia simplex	1	
Apoplexia	1	
Arteriosclerosis	1	
Carcinoma	1	
Catarrhus gastricus chronicus	1	
Catarrhus intestinalis acutus	1	
Encephalitis	1	
Endocarditis	1	
Febris flava	1	
Gangræna	1	
Gastrectasis	1	
Hemoptysis	1	
Hepatitis chronica	1	
Hepatitis suppurativa	1	
Leucocythæmia	1	
Otitis media	1	
Pleuritis chronica	1	
Prostratio thermica	1	
Sarcoma	1	
Sinusitis (frontal)	1	
Thrombosis (heart)	1	
Tuberculosis of other parts	1	
Ulcus gastricum	1	
Uremia	1	
Urethræ ruptio	1	
Urinæ suppressio	1	
Vincent's angina	1	



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[1] Tuberculosis, 24 cases, Naval Sanatorium, Las Animas, Colo.
[2] Dementia, 4 cases, Government Hospital for the Insane.

TABLE NO. 12.—***Table to show distribution of disease among occupational groups of the personnel for 1911, by admissions, admission rates, sick and computed damage.***

Classes (and rate per 1,000 of personnel in each occupation).	Officers.		Artificers.				Miscellaneous force.						Seaman branch.			Totals, by classes.			
	Navy and Marine.	Midshipmen (undergraduate).	Electricians.	Engine-room.	Fireroom.	All others.	Clerical.	Culinary.	Hospital.	Marines.	Musicians.	Prisoners.	Apprentice seamen.	Ordnance.	All others.	Number.	Deaths.	Invalided from service.	Sick days.
Number in service June 30, 1911	3,855	768	1,752	3,012	10,523	1,465	1,155	3,324	1,012	9,401	890	791	2,910	1,717	18,824	61,399	......	......	......
ADMISSIONS.[2]																			
Alcoholism	6	2	3	27	51	14	11	9	6	81	3	1	1	3	52	270	3	5	1,439
Rate	1.55	2.60	1.71	8.96	4.84	9.54	9.52	2.70	5.92	8.61	3.36	1.26	.34	1.74	2.76	4.39	.04	.08	......
Appendicitis and peritonitis	35	21	8	20	99	15	9	19	32	82	4	7	15	13	161	540	12	10	16,358
Rate	9.07	27.34	4.56	6.64	9.48	10.23	7.79	5.71	31.62	8.72	4.49	8.84	5.15	7.57	8.55	8.79	.19	.16	......
Contagious diseases	259	287	82	143	976	90	83	168	115	764	71	43	1,430	101	1,844	6,456	15	2	68,686
Rate	67.18	373.69	46.80	47.47	92.74	61.43	71.86	50.54	113.63	81.27	79.77	54.36	491.40	58.82	97.96	105.14	.24	.03	......
Digestive organs, general diseases of	171	362	47	74	265	42	29	74	38	299	23	21	46	26	362	1,879	8	15	22,084
Rate	44.35	471.35	26.82	24.56	25.18	28.66	25.10	22.26	37.54	31.80	25.84	26.54	15.80	15.14	19.23	30.60	.13	.24	......
Dysenteric affections	16	......	1	7	13	......	2	4	7	42	......	......	3	4	21	120	......	......	3,400
Rate	4.15	......	.57	2.31	1.23	......	1.73	1.20	6.91	4.46	......	......	1.03	2.32	1.11	1.95	......	......	......
Ear affections	34	13	11	23	91	5	8	7	2	109	10	4	70	7	153	547	1	88	14,857
Rate	8.81	16.92	6.27	7.63	8.64	3.41	6.92	2.10	1.97	11.59	11.23	5.05	24.06	4.07	8.12	8.90	.01	1.43	......
Eye affections	39	183	16	36	113	19	20	26	19	128	7	1	41	22	175	845	......	96	15,621
Rate	10.11	238.28	9.12	11.95	10.73	12.95	17.31	7.82	18.77	13.61	7.86	1.26	14.08	12.81	9.29	13.76	......	1.56	......
Genito-urinary (nonvenereal)	44	17	33	43	184	25	18	42	20	180	4	5	68	20	243	946	11	69	19,398
Rate	11.41	22.13	18.83	14.27	17.48	17.06	15.58	12.63	19.66	19.14	4.49	6.32	23.36	11.64	12.90	15.40	.17	1.12	......
Heart affections	21	......	2	7	37	4	3	6	4	54	4	2	31	6	52	233	11	106	6,386
Rate	5.44	......	1.14	2.31	3.51	2.73	2.59	1.80	3.95	5.74	4.49	2.52	10.65	3.49	2.76	3.79	.17	1.72	......
Heat affections	5	......	3	10	39	4	......	3	1	5	......	1	......	1	18	90	1	1	423
Rate	1.29	......	1.71	3.32	3.70	2.73	......	.90	.98	.53	......	1.26	......	.58	.95	1.46	.01	.01	......
Injuries	189	176	101	248	1,110	113	49	186	58	648	31	46	243	120	1,686	5,004	93	210	86,498
Rate	49.02	229.16	57.64	82.33	105.48	77.13	42.42	55.95	57.31	68.92	34.82	58.15	83.50	69.88	89.56	81.49	1.51	3.41	......
Malaria (all forms)	24	2	5	14	56	7	9	17	12	425	2	3	13	9	145	743	......	1	7,298
Rate	6.22	2.60	2.85	4.62	5.32	4.77	7.79	5.11	11.85	45.20	2.24	3.79	4.46	5.24	7.70	12.10	......	.01	......
Mental diseases	8	......	6	13	51	4	6	15	5	33	3	2	15	......	53	214	2	124	6,363
Rate	2.07	......	3.42	4.29	4.84	2.73	5.19	4.51	4.94	3.51	3.36	2.52	5.15	......	2.81	3.48	.03	2.01	......

Neurasthenia	38	1	7	5	23	3	7	4	5	15	4	1	2	3	20	188	......	29	6,115
Rate	9.85	1.30	3.99	1.66	2.18	2.04	6.05	1.20	4.94	1.59	4.49	1.26	.68	1.74	1.06	2.24	......	.47	......
Respiratory diseases (except pneumonia and tuberculosis)	113	67	20	39	180	21	19	39	22	211	17	4	311	11	305	1,379	11	44	20,300
Rate	29.31	86.97	11.40	12.94	17.10	14.32	16.45	11.73	21.63	22.44	19.09	5.05	106.87	6.40	16.20	22.45	.17	.71	......
Rheumatic affections	65	9	18	40	206	24	9	42	13	154	11	6	60	11	238	906	......	56	24,005
Rate	16.86	11.81	10.27	13.27	19.57	16.38	7.79	12.63	12.83	16.38	12.35	7.59	20.61	6.40	12.64	14.75	......	.91	......
Skin diseases	74	157	37	101	493	48	22	73	16	342	23	24	127	45	825	2,407	8	11	30,335
Rate	19.19	204.42	21.11	33.53	46.84	32.76	18.04	21.96	15.80	36.37	25.84	30.34	43.64	26.20	43.82	39.20	.04	.17	......
Suicide	5	......	1	1	1	1	......	4	......	5	......	......	......	1	3	22	22	......	22
Rate	1.29	......	.57	.33	.09	.68	......	1.20	......	.53	......	......	......	.58	.15	.35	.85	......	......
Tuberculosis	21	1	8	25	60	7	7	24	7	50	8	7	16	6	103	350	15	238	12,075
Rate	5.44	1.30	4.56	8.30	5.70	4.77	6.05	7.22	6.91	5.31	8.98	8.84	5.49	3.49	5.47	5.70	.24	3.87	......
Typhoid fever	18	17	4	13	37	3	4	5	8	41	2	......	48	6	52	258	15	......	14,024
Rate	4.66	22.13	2.28	4.29	3.51	2.04	3.46	1.50	7.89	4.35	2.24	......	16.49	3.49	2.76	4.20	.24	......	......
Venereal diseases	45	16	201	470	2,601	222	170	732	122	2,125	94	28	393	210	3,842	11,271	2	188	163,459
Rate	11.67	20.83	114.72	156.04	247.17	151.53	147.18	220.21	120.55	226.03	106.61	35.39	135.05	122.30	204.10	183.56	.03	3.06	......
Totals for above causes	1,230	1,331	614	1,359	6,686	671	485	1,499	512	5,793	321	206	2,933	625	10,353	34,618	225	1,293	539,146
Rate	319.06	1,733.07	350.45	451.19	635.37	458.02	419.91	450.96	505.92	616.22	360.67	260.42	1,007.90	364.00	549.98	563.82	3.66	21.06	......
Totals for all other causes	240	331	90	172	662	82	79	275	97	1,148	33	23	318	74	408	4,032	28	382	65,917
Rate	62.25	430.98	51.36	57.10	62.90	55.97	68.39	82.73	95.84	122.11	37.07	29.07	109.27	43.09	21.67	65.66	.45	6.22	......
Totals for all causes	1,470	1,662	704	1,531	7,348	753	564	1,774	609	6,941	354	229	3,251	699	10,761	38,650	253	[3]1,675	605,063
Rate	381.32	2,164.06	401.82	508.30	698.27	513.99	488.31	533.69	601.77	738.32	397.75	289.50	1,117.18	407.10	571.66	629.48	4.12	27.28	......
Died	21	......	8	15	53	5	4	20	2	33	3	......	17	9	63	253	......	......	......
Rate	5.44	......	4.56	4.95	5.03	3.41	3.46	6.01	1.97	3.51	3.36	......	5.84	5.24	3.34	4.12	......	......	......
Invalided from service	19	......	31	56	296	26	22	88	33	509	18	......	199	13	365	[3]1,675	......	......	......
Rate	4.92	......	17.69	18.59	28.12	17.74	18.04	26.47	32.60	54.14	20.22	......	68.38	7.57	19.39	27.28	......	......	......
SICK DAYS.																			
For all causes, as noted above	29,952	6,705	12,718	28,728	110,601	14,587	9,163	28,645	10,168	115,344	5,193	3,745	48,643	12,197	168,674	605,063	......	......	......
Naval Sanatorium for Tuberculosis, Las Animas, Colo	1,682	773	2,130	7,054	6,673	1,793	1,280	2,947	2,608	6,454	1,089	......	3,358	356	15,080	53,277	......	......	......
Hospitals for the insane	495	......	482	1,397	2,502	296	549	882	87	1,634	40	......	1,085	......	3,006	12,455	......	......	......
Total sick days [4]	32,129	7,478	15,330	37,179	119,776	16,676	10,992	32,474	12,863	123,432	6,322	3,745	53,086	12,553	186,760	670,795	......	......	......
Average number days per individual	8.33	9.73	8.75	12.34	11.38	11.38	9.51	9.76	12.71	13.12	7.10	4.73	18.24	7.31	9.92	10.92	......	......	......
Total damage [1,4]	107.44	20.26	61.39	136.91	502.24	60.78	42.97	142.44	52.18	609.07	27.62	10.26	280.59	44.82	725.12	2,535.16	......	......	......

[1] Total damage in terms of individuals whose loss of service by sickness, discharge, or death would be represented as continuous throughout the year.
[2] Does not include those under treatment at Naval Sanatorium for Tuberculosis at Las Animas, Colo., and in hospitals for the insane.
[3] Includes those sent to Naval Sanatorium for Tuberculosis at Las Animas, Colo., and hospitals for the insane.
[4] Including entire service.

TABLE No. 13.—*Table of surgical operations for the year 1911.*

Operation for—	Character or name of operation.	Result.				Anesthetic employed.							Immediate cau death.
		Cured.	Improved.	Unimproved.	Died.	Chloroform.	Chloroform-ether.	Ether.	Ether-ethyl chloride.	Ethyl chloride (general).	Local.	None.	
Abdominal viscera ruptured	Intestines sutured	1						1					
Abscess:													
Abdominal	Incised and drained	1						1					
Appendicular	do		1		2	3							1, venous engorg 1, uremia.
Brain	Craniotomy	1			1			1	1				Meningitis.
Eye	Enucleation	1			1	1					1		Septicemia.
Do	Incised and drained	1									1		
Inguinal	do	337	1			2		22			314		
Kidney	Exploratory	1		1	1			3					Pyemia.
Do	Incised and drained	1		1				2					
Larynx	do	1						1					
Liver	do	6	2		1		1	7			1		Numerous absce
Lung	Rib resection		1								1		
Lymph node	Incised and drained	6									6		
Neck	do				1			1					Anesthetic.
Omental	do	1						1					
Prostate	do	2						1			1		
Rectum	do	19	3				1	5			16		
Thigh	do	1						1					
Undefined	do	1,063				1		1			1,061		
Adenoids	Curettage	1									1		
Do	Excised	12							1		11		
Adhesions, peritoneum	Repaired	4		1				5					
Anemia, pernicious	Transfusion of blood		1								1		
Angioma, knee	Excised		1					1					
Appendicitis	Appendectomy	312	30		11	2	2	340	9				9, peritonitis; 1, thetic; 1, acu phritis.
Arthritis, chronic; knee	Incised and drained		2	1				1	2				
Atrophy, testicle	Orchidectomy	1						1					
Bursitis:													
Elbow	Excision of bursa	1						1					
Undefined	Incised and drained	5									5		
Calculus, bladder	Suprapubic cystotomy	1						1					
Carcinoma, undefined	Excised	1									1		
Cataract	Extraction and iridectomy	1									1		

Cellulitis, undefined	Incised	26						1			25		
Childbirth	Forceps delivery	2										2	
Do.	Version	3										3	
Cholecystitis	Cholecystotomy	1	1					2					
Cholelithiasis	do	2	1					3					
Contracture, tendon	Repaired	1	1					1			1		
Crush:													
Fingers and toes	Amputation	55						7			48		
Arm	do	1						1					
Cyst:													
Kidney	Nephrectomy	1						1					
Ovarian	Excised	3			1			4					Not given.
Sebaceous	do	63						3			60		
Cystitis	Cystotomy	1						1					
Dacryocystitis	Excision of sac	1									1		
Deformity:													
Leg	Amputation	1	1					2					
Acquired, urethra	Beck's urethrotomy	5									5		
Deviation, nasal septum	Submucous resection	60									60		
Dislocation:													
Knee cartilage	Excised	8	1					8		1			
Undefined	Reduction	1										1	
Dysentery:													
Amebic	Appendicostomy	1			1			2					Do.
Undefined	do	3	1					4					
Elongation, uvula	Uvulectomy	6									6		
Endocarditis	Transfusion of blood				1						1		Do.
Enteritis	Appendicostomy	1						1					
Epididymitis, chronic	Epididymectomy	9	1					5			5		
Epithelioma:													
Chest	Excised	1						1					
Lip	do	2	1			1		1	1				
Neck	do	1						1					
Undefined	do	1									1		
Exploratory:													
Abdomenal	Laparotomy		1	3	1		1	4					Carcinoma of colo
Gall bladder	do			1				1					
Liver	do	1						1					
Pancreas	do				1			1					Sarcoma.
Pericardium	Aspiration			1								1	
Extravisation, urine	Cystotomy				1						1		Not given.
Fibroma, skin	Excised	10		1				5			6		
Filiriasis	Incised	2								2			
Fistula:													
Anal	Incised and curetted	36		1		1		10			26		
Fecal	Plastic closure				1			1					Septicemia.
Foreign body:													
Gall bladder	Removal of gauze wick	1						1					
Knee joint	Removal of joint mice	1						1					
Larynx	Tracheotomy				1				1				Diphtheria.

TABLE NO. 13.—*Table of surgical operations for the year 1911*—Continued.

Operation for—	Character or name of operation.	Result.				Anesthetic employed.							Immediate caus death.
		Cured.	Improved.	Unimproved.	Died.	Chloroform.	Chloroform-ether.	Ether.	Ether-ethyl chloride.	Ethyl chloride (general).	Local.	None.	
Fracture:													
Ankle	Exploration		1								1		
Clavicle	Removal of loose fragments	1						1					
Femur	Approximation		1					1					
Nose	Reduction	1									1		
Patella	Capsule sutured	1	1					2					
Do	Wired	3	1				1	3					
Do	Ligaments sutured	2						2					
Radius, compound	Reduction		1					1					
Skull	Removal of clot and ligation	1						1					
Skull, compressed	Trephining and decompression.	7	4	1	1	1		12					Stone in brain.
Skull	Trephining		1					1					
Do	Removal of fragments				1							1	Not given.
Tibia and fibula	Wired	1						1					
Ulnar, compound	Removal of fragments		1					1					
Undefined	Approximation	9									5	4	
Zygoma	do	1						1					
Fracture and dislocation, humerus.	Excision of head of humerus	1						1					
Gangrene:													
Finger	Amputation	1						1					
Foot	do		1					1					
Leg and thigh	do				1			1					Do.
Toe	do	1							1				
Gastroptosis	Exploratory laparotomy		1					1					
Gestation, extra-uterine	Excised	1						1					
Glaucoma	Iridectomy	1									1		
Goiter, exopthalmic	Polar ligation	1	1					2					
Gonococcus infection:													
Bladder	Perineal cystotomy	1						1					
Eye	Enucleation	1						1					
Knee	Incised and drained			1				1					
Lymph node	do	1						1					
Hemorrhoids	Clamp and cautery	132		1		2		79	7		45		
Do	Ligated and excised	96				5	1	10	4		76		
Hematoma, pelvic	Laparotomy		1	1				2					

Hallux valgus	**Excision of head of bone**	8						6			2		
Hallux varus	**Amputation**	17						8			9		
Hernia:													
Epigastric	**Radical**	3						2			1		
Femoral	do	3						3					
Inguinal	**Bassini**	202	4	1		3		191	9		4		
Do	**Colle-Bassini**	52						52					
Do	**Ferguson**	52	1					46	6		1		
Do	**Halstead**	3	1					1	3				
Do	**Johns Hopkins**	1							1				
Ventral	**Plastic repair**	20	1			1		20					
Hydrocele, chronic	**Excision of sac**	36	1					14	4		19		
Hypertrophy:													
Mammary glands	**Extirpation**	2						2					
Tonsils	**Cauterized**	13									13		
Do	**Excised**	145									145		
Do	**Incised**	69									69		
Hypospadias	**Plastic repair**	3									3		
Infected stump, toe	Reamputation	1						1					
Ingrowing nail	Excised	111									111		
Insufficiency of occular muscles	Repair	1									1		
Intra-cranial injury	Removed compression		2		1			2				1	Do.
Intra-spinal injury	Relieved pressure				1			1					Do.
Laceration, pelvic floor	Perineorrhaphy	6						1			5		
Lipoma, undefined	Excised	9						1			8		
Loose body, knee joint	Removal of synovial **fringes**	1						1					
Lymphadenitis, chronic	**Excised (no location given)**	30						6			24		
Lymphangeitis	**do**	2									2		
Mastoiditis	**Incised and drained**	19	11		1			30	1				**Ether pneumonia.**
Do	**Trephined**		1					1					
Metritis, acute	**Cleansing and douche**				1			1					**General sepsis.**
Multiple injuries, extreme	**Repair**	1									1		
Necrosis:													
Clavicle	**Excised**	1						1					
Parietal	do	1					1						
Undefined	Curetted	4	3	1				4			4		
Do	Excised	1	1					2					
Nephritis acuta	Intravenous salt transfusion		1			1							
Neuralgia, coccydynia	Coccyx excised	1						1					
Neuritis, inguinal	**Removal of scar tissue**	1						1					
Obstruction:													
Cystic duct	**Gall bladder drained**		1					1					
Do	Cholecystocolotomy	1						1					
Intestinal	Removed		1					1					
Do	Enterostomy		1		1			2					**Tubercular periton**
Orchitis, chronic	Orchidectomy	2									2		
Osteitis, undefined	**Curettage**	3									3		
Osteoma:													
Femur	**Removal**		1					1					
Undefined	**do**		1					1					

Table No. 13.—*Table of surgical operations for the year 1911*—Continued.

Operation for—	Character or name of operation.	Result.				Anesthetic employed.							Immediate caus death.
		Cured.	Improved.	Unimproved.	Died.	Chloroform.	Chloroform-ether.	Ether.	Ether-ethyl chloride.	Ethyl chloride (general).	Local.	None.	
Osteomyelitis:													
Clavicle	Incised and drained			1				1					
Thigh	Amputation	1						1					
Tibia	Subperiosteal resection	1	1	1				3					
Undefined	Incised and drained	2									2		
Otitis externa	Paracentisis	4						4					
Paralysis:													
Facial	Mastoid opened		1								1		
Musculo-spiral	Freed nerve from adhesions	1						1					
Paronychia	Incised	1									1		
Periostitis:													
Finger	Incised and curetted	1				1							
Tibia	Curetted		1					1					
Undefined	do	4									4		
Phimosis	Circumcised	419						1			418		
Phlebitis, undefined	Incised			1					1				
Placenta praevia	High forceps	2						2					
Pleurisy:													
Chronic, fibrinous	Resection of rib				1			1					Not given.
Sero-fibrinous	Paracentesis	9									9		
Suppurative	Intercostal incision		1		1			1	1				Do.
Do	Thoracentisis	2	3	1	2				1		7		1 pericardial ab 1 abscess of lun
Polypus, nose	Excised	8									8		
Prolapse, rectum	Clamp and cautery	2						1			1		
Prostate, hypertrophy	Prostectomy	1						1					
Pterygium	Excised and sutured	36									36		
Pyosalpinx	Drainage	3						3					
Rectal incontinence	Plastic repair to sphincter		1	1				2					
Rhinitis, chronic	Turbinates cauterized	5									5		
Rhinitis, hypertrophic	Turbinectomy	35									35		
Rupture, patellar ligament	Sutured	1						1					
Scar tissue, undefined	Divided	1									1		
Septicemia, arm	Amputation	1						1					
Sinus:													
Appendicular	Excised		1	1				2					
Inguinal	do	1						1					

Sacral	do	1						1					
Undefined	do	1									1		
Sinusitis:													
Ethmoid	Curettage	1									1		
Frontal	Trepined				1	1							Septicemia.
Do	Killian (incised and drained)	4						4					
Sphenoid	Curettage	1									1		
Splanchnoptosis	Posterior gastro-enterostomy			1				1					
Spleen, hypertrophied	Splenectomy	1						1					
Spurs, nasal septum	Excised	11									11		
Strabismus	Repair	1									1		
Stricture, urethral	Urethrotomy	1		1	1			3					Suppurative nepl
Symblypheron	Dissected	1									1		
Synovitis, knee	Fringe excision	1						1					
Syphilis, brain	Decompression				1			1					Not given.
Tenosynovitis	Incised and drained	1						1					
Toxemia of pregnancy	Eclampsia forceps	1			1	1				1			Do.
Trachoma	Expression	2									2		
Tuberculosis:													
Brain	Cushing's decompression			1	1			2					Cranial pressure.
Foot	Amputation	1						1					
Lymph node, inguinal	Excised	1				1							
Lymph node, neck	do	7		1				6	2				
Sacro-illiac	Curettage		1					1					
Testicle	Orchidectomy	3		1				4					
Vertebra	Curettage		1					1					
Tumor:													
Benign	Excised	4									4		
Parotid gland	do	1						1					
Urethra	do	1									1		
Ulcer:													
Duodenum	Posterior gastro-enterostomy.	1						1					
Duodenum, perforating	Sutured	1						1					
Gastric	Posterior gastro-enterostomy.	1						1					
Ileum, typhoidal	Resection and Murphy button.				1				1				Typhoid toxemia
Skin	Excised		1					1					
Stomach	Exploratory laparotomy		1	1				2					
Do	Posterior gastro-enterostomy.	3						3					
Stump, leg	Reamputation		1					1					
Undefined	Curettage	8									8		
Do	Skin graft	1						1					
Undescended testicle	Orchidectomy			1				1					
Union of bone, faulty:													
Finger	Amputation	1						1					
Do	Repair		1								1		
Foot	do		1					1					
Radius	Resection and bone plate	1						1					

TABLE No. 13.—*Table of surgical operations for the year 1911*—Continued.

Operation for—	Character or name of operation.	Result.				Anesthetic employed.							Immediate cause of death.
		Cured.	Improved.	Unimproved.	Died.	Chloroform.	Chloroform-ether.	Ether.	Ether-ethyl chloride.	Ethyl chloride (general).	Local.	None.	
Union of bone, faulty—Contd.													
Radius	Excision of callous	2						2					
Do	Refracture	1						1					
Toe	Amputation			1				1					
Ulna	Resection	1						1					
Undefined	Repair	7						1			6		
Wrist	do	8						1			2		
Varicocele	Ligation and excision	192				1		68			123		
Varix, undefined	do	47	2					34	1		14		
Wound:													
Gunshot—													
Arm	Removal of end of humerus		1					1					
Brain	Decompression				1							1	Suicide.
Knee	Removal of bullet		1					1					
Thigh	Repair	2									2		
Undefined	do	2									2		
Incised—													
Neck	Ligation of artery	1						1					
Heel	Sutured tendo-Achilles	1						1					
Tendons, undefined	Sutured	2									2		
Undefined	do	48									48		
Lacerated—													
Eye	Enucleation	2						2					
Do	Repair	1									1		
Kidney	Nephrectomy	1						1					
Scrotum	Repair	1						1					
Spleen	Exploratory laparotomy				1			1					Not given.
Undefined	Repair	65									65		
Punctured—													
Abdominal	Intestines sutured				1			1					Peritonitis.
Chest	Repair	1										1	
Undefined	do	83										83	
Total		4,249	118	31	47	29	8	1,199	58	4	3,049	98	

Divisions.	Classification.			Total by divisions.
	Incipient.	Moderately advanced.	Far advanced.	
	Number.	*Number.*	*Number.*	*Number.*
Remaining from last year	45	66	33	144
Readmitted from other places	105	66	32	203
Original admissions from Las Animas	6	5	1	12
Total	156	137	66	359

Discharged from institutions as—	No.	Days.[1]	No.	Days.[1]	No.	Days.[1]	No.	Days.[1]
Dead	......	....	5	2,766	28	5,354	33	8,120
Unimproved	2	218	31	10,379	17	4,592	50	15,189
Improved	44	7,628	35	10,885	3	900	82	19,413
Arrested	18	2,560	2	265	......	....	20	2,825
Apparently cured	27	6,014	1	539	......	....	28	6,553
Continued to next year	65	16,598	63	19,134	18	5,842	146	41,574
Total	156	33,018	137	43,968	66	16,688	359	93,674

[1] Total aggregate number of sick days since admission into sanatorium.

NOTE.—There were no cases of acute military tuberculosis for the year 1911.

TABLE No. 15.—*Hospitals for the insane.*

REVIEW OF THE ADMISSIONS AND DISPOSITIONS OF CASES.

Classification.	Government Hospital for the Insane, Washington, D.C.	Mendocino State Hospital for the Insane, Ukiah, Cal.	Total.
Taken up as—			
Remaining from last year	26	3	29
Admitted	86	29	115
Disposition:			
Discharged to duty	....	1	1
Died	4	1	5
Invalided from service	76	4	80
Transferred to Naval Hospital	1	....	1
Transferred	14	22	36
Continued to next year	17	4	21
Total sick days	8,343	4,112	12,455

OCCUPATIONAL GROUPING.

Classification.	Government Hospital for the Insane, Washington, D. C.		Mendocino State Hospital for the Insane, Ukiah, Cal.		Total.	
	Cases.	Sick days.	Cases.	Sick days.	Cases.	Sick days.
Officers of the Navy and Marine Corps	3	168	1	115	4	283
Artificers.						
Electricians	2	482	....	....	2	482
Engine room	8	841	3	526	411	1,367
Fire room	29	1,702	7	818	36	2,520
All others	2	86	2	342	4	428
Miscellaneous force:						
Clerical	3	457	....	....	3	457
Culinary	7	627	3	342	10	969
Hospital force	1	41	1	46	2	87
Marines	16	1,184	4	532	20	1,716
Musicians	2	40	....	....	2	40
Seamen branch:						
Apprentice seamen	17	797	4	389	21	1,186
All others	22	1,918	7	1,002	29	2,920
Totals:						
Number	112	8,343	32	4,112	144	12,455
Deaths	4	....	1	....	5	....
Invalided from the service	76	....	4	....	80	....

TABLE No. 16.—*Supernumeraries: Those not on the active list of the Navy and Marine Corps, members of the Nurse Corps (female), personnel of the Naval Auxiliary Service, and civilians treated by the Naval Medical Corps.*

Place.	Taken up as—			Disposition.										Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	d.	Invalided from service.	Hospital.	Hospital for the Insane.	Hospital for Tuberculosis.	Transferred.	Continued to next year.	
Albatross, U. S. S.		1							1					4
Annapolis, Md.:														
Academy		12		3					9					24
Hospital		2	8	10										164
Boston, Mass. (yard)		1		1										1
Cañacao, P. I. (hospital)	4	64	15	75	3		3						2	986
Cavite, P. I. (station)		10							10					10
Charleston, S. C. (yard)		16		13									3	284
Chelsea, Mass. (hospital)		28		21						1	1		5	571
Chicago, Ill. (hospital)			1	1										29
Connecticut, U. S. S.		1		1										2
Culebra, P. R. (station)		3		3										3
Delaware, U. S. S.			1									1		21
Florida, U. S. S.			1						1					8
Guam (hospital)	41	1,458	11	1,461	2		42						5	20,650
Guantanamo, Cuba (station)		3		1								1	1	65
Hancock, U. S. S.		2							2					2
Indiana, U. S. S.		2		2										2
Key West, Fla. (station)		1		1										2
Las Animas, Colo. (hospital)	12	37	4	27			10						16	5,764
Mare Island, Cal.:														
Hospital	5	51	1	47	4						2		4	2,122
Yard		4		3					1					31
Mississippi, U. S. S.		2		2										21
Newport, R. I. (hospital)	2	9		9									2	248
New York, N. Y.:														
Hospital	3	36	39	64	3	1	1	1				1	7	1,968
Special duty		8					6		2					9
Yard		12		2			1		9					57
Norfolk, Va.:														
Hospital	13	78	48	117	6			5		1			10	3,908
Yard		66	2	3					65					77
Olongapo, P. I. (hospital)	1	79	1	73			4						4	1,273
Pensacola, Fla. (hospital)		3		3										45

TABLE NO. 16.—*Supernumeraries: Those not on the active list of the Navy and Marine Corps, members of the Nurse Corps (female), personnel of the Naval Auxiliary Service, and civilians treated by the Naval Medical Corps*—Continued.

Place.	Taken up as—			Disposition.										Total number of sick days.
	Remaining from last year.	Admitted.	Readmitted.	Duty.	Diagnosis changed.	Deserted.	Died.	Invalided from service.	Hospital.	Hospital for the Insane.	Hospital for Tuberculosis.	Transferred.	Continued to next year.	
Philadelphia, Pa.:														
Hospital	4	76	33	64	13		15			4		6	11	2,214
Special duty		5		4					1					13
Yard		2		1					1					24
Portsmouth, N. H.:														
Hospital		6	1	5			1					1		72
Yard		1							1					1
Puget Sound, Wash.:														
Hospital		6	3	8							1			235
Yard		1							1					1
San Francisco, Cal.:														
Special duty		2		1			1							2
Training station		2		2										5
Sitka, Alaska (hospital)	1	10		10			1							169
Solace (hospital ship)	1	50	3	39	1							12	2	518
South Carolina, U. S. S		1		1										16
South Dakota, U. S. S			1						1					1
Washington, D. C.:														
Dispensary		19		3			8		8					96
Hospital	1	37	21	45	2		5					1	6	1,278
Marine barracks		2							2					2
West Virginia, U. S. S		1		1										86
Yokohama, Japan (hospital)		1		1										28
Total	88	2,211	194	2,128	34	1	98	6	115	6	4	23	78	43,112

II. GENERAL.

TABLE No. 17.—*Recruiting statistics for the year 1911.*

Total number.	Navy.	Marine Corps.	Entire service.
Applicants	79,458	49,999	129,457
Examined physically	44,230	5,169	49,399
Ratio per 1,000 of applicants	556.64	103.38	381.58
Accepted physically	19,119	3,137	22,256
Ratio per 1,000 of applicants	240.61	62.74	171.91
Ratio per 1,000 of applicants examined physically	432.26	606.88	450.53
Surveyed within 4 months for disabilities existing prior to enlistment	248	161	409
Ratio per 1,000 improperly accepted	12.97	51.32	18.37
Original enlistments	15,724	2,987	18,711
Reenlistments	3,849	892	4,741
Enlisted	19,573	3,879	23,452
Surveyed within four months for disabilities existing prior to enlistment	248	161	409
Ratio per 1,000 improperly enlisted	12.67	41.50	17.43

TABLE No. 18.—*Smallpox vaccinations—Report of vaccinations in the Navy and Marine Corps for the year 1911.*

Classification.	Total number vaccinated.	Successful.	Unsuccessful.	Undetermined by reason of transfer.	Percentage of success.
No evidence of previous vaccination	8,414	3,225	4,443	667	38.32
Evidence of previous vaccination	26,161	5,522	17,541	3,182	21.10
Evidence of having had smallpox	346	26	281	34	7.51
Total	34,921	8,773	22,265	3,883	22.25

TABLE No. 19.—*Statement of the work done by the Record and Pension Division of the bureau during the fiscal year ending June 30, 1912.*

Pension cases remaining on hand June 30, 1911	17
Received during fiscal year ending June 30, 1912	1,390
Answered during fiscal year ending June 30, 1912	1,398
Remaining on hand June 30, 1912	9
Cases for board of medical examiners received and answered	559
Cases for retiring board received and answered	44
Reports of death received	373
Reports of medical survey received and acted upon	2,585
Cases from Civil Service Commission received and answered	47
Cases of physical rejection, transfer of patients, and miscellaneous letters received and answered	6,074
Total	12,496
Average for each working day	40+

III. FINANCIAL.

TABLE No. 20.—*Statement of cost of maintenance of naval hospitals for the fiscal year 1912.*

	Portsmouth, N. H.	Chelsea, Mass.	Newport, R. I.	New York, N. Y.	Philadelphia, Pa.	Washington, D. C.	Annapolis, Md.	Norfolk, Va.
Provisions	$11,326.22	$33,557.23	$18,785.29	$38,907.48	$29,949.51	$24,353.11	$10,210.74	$50,030.93
Ambulance service	128.00	1,151.64	1,337.01	1,134.63	1,110.51	4,436.89	711.23	1,128.93
Fuel, light, water	3,202.23	7,540.37	5,675.12	17,293.96	8,105.70	9,890.67	5,457.57	12,862.91
Medical supplies	816.56	4,234.55	8,539.08	2,298.30	4,466.46	4,099.93	2,274.60	13,738.71
Miscellaneous supplies	2,219.96	6,415.85	5,565.57	10,687.81	7,075.01	9,184.90	2,390.22	12,841.88
Total cost of maintenance	17,692.97	52,899.64	39,902.07	70,322.18	50,707.19	51,965.50	21,494.36	90,603.36
Sick days:								
Navy	6,223	36,984	26,470	44,718	23,001	9,875	7,398	55,316
Marine Corps	2,524	6,450	122	7,268	7,339	7,895	3,922	8,206
Supernumeraries	37	452	237	2,700	3,204	1,189	177	3,465
Subsistence days:								
Hospital Corps	3,882	9,831	7,735	11,004	8,783	12,482	5,373	15,854
Pay yeoman in pay office	....	....	....	....	....	....	....	....
Nurse Corps	....	....	....	....	40	....	....	83
Marine Guard	....	....	....	7,864	....	6,270	....	7,144
Civilian employees	2,196	5,785	4,023	14,958	6,328	5,124	3,645	16,930
Total number of days' subsistence	14,862	59,502	38,227	88,512	48,696	42,835	20,515	106,998
Average cost per diem for maintenance	$1.190	$0.889	$1.044	$0.795	$1.04	$1.213	$1.047	$0.846
Average cost per diem for subsistence	.762	.564	.491	.440	.61	.569	.493	.467

	Port Royal, S. C.	Great Lakes, Ill.	Las Animas, Colo.	Mare Island, Cal.	Puget Sound, Wash.	Cañacao, P. I.	Olongapo, P. I.	Yokohama, Japan.	Guam.
Provisions	$4,824.22	$7,748.25	$77,480.75	$40,280.29	$15,164.74	$14,569.60	$14107.33	$5,428.03	$3727.57
Ambulance service	....	1,343.58	1,913.91	1,580.28	16.69	913.22	....	....	....
Fuel, light, water	463.75	5,431.37	23,712.29	18,801.85	3,476.27	15,278.99	2,235.26	3,455.94	387.15
Medical supplies	1,399.89	10,609.17	5,067.02	9,952.37	5,558.45	3,890.00	2,712.54	512.70	1,246.39
Miscellaneous supplies	1,365.19	8,313.61	19,305.47	10,976.75	4,857.23	6,049.82	6,081.58	1,479.17	2,619.75
Total cost of maintenance	8,053.05	33,445.98	127,479.44	81,591.54	29,073.38	40,701.63	25,136.71	10,875.84	7,980.86
Sick days:									
Navy	396	7,650	45,225	54,755	11,975	10,030	6,311	1,073	620
Marine Corps	2,164	53	5,875	12,211	4,707	4,941	7,791	1,014	839
Supernumeraries	....	110	5,496	2,885	701	1,422	1,298	40	37
Subsistence days:									
Hospital Corps	1,644	4,562	11,126	14,577	6,258	7,884	6,218	2,216	2,558
Pay yeoman in pay office	....	....	370	....	....	....	....	410	....
Nurse Corps	....	....	....	2,462	....	....	....	....	....
Marine Guard	....	....	10,168	....	....	385	....	4,170	....
Civilian employees	1,478	3,015	20,954	9,878	2,682	4,926	4,604	....	....
Total number of days' subsistence	5,682	15,390	99,214	96,768	26,323	29,588	26,222	8,923	4,054
Average cost per diem for maintenance	$1.417	$2.173	$1.280	$0.843	$1.104	$1.370	$0.958	$1.218	$1.968
Average cost per diem for subsistence	.849	.503	.781	.416	.576	.492	.537	.608	.919

TABLE NO. 21.—*Statement of activities of naval medical supply depots.* [1]

Supply depots.	Requisitions filled.	
	Number.	Value.
New York, N Y	811	$173,778.19
Mare Island, Cal	205	53,414.41
Cañacao, P. I	158	22,745.80

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[1] The activities of these depots embrace the purchase of medical and surgical supplies, instruments, furniture, etc., their delivery to ships, stations, and hospitals, and the acquisition of information concerning the condition of the market and the sources of supply available in event of national emergency.

TABLE NO. 22.—*Statement of naval hospital fund.*

The condition of this fund is as follows:

Transferred to credit since July 1, 1911	$1,400,799.25
Expended since July 1, 1911	1,381,522.88
Balance on hand June 30, 1912	19,276.37

REPORT OF THE MAJOR GENERAL COMMANDANT OF THE UNITED STATES MARINE CORPS.

Headquarters United States Marine Corps,
Washington, October 17, 1912.

From Major General Commandant.
To Secretary of the Navy (Division of Personnel).

Subject: Annual report of the condition and service of the United States Marine Corps for the fiscal year ended June 30, 1912.

In compliance with the department's instructions, I have the honor to submit the following report of the condition and service of the United States Marine Corps for the last fiscal year.

During the period covered by this report, inspections of the marine barracks at the navy yards and stations, both in the United States and in the insular possessions thereof, have been made, as far as practicable, either by the undersigned or by officers of the adjutant and inspector's department. Favorable reports as to the personnel, so far as pertains to health and discipline, have generally been made of those posts which have been visited by the inspecting officers. As stated in former reports, adverse criticism has been made of some of the barracks, due to their being obsolete both as to construction and capacity, and to lack of proper accessories; but there is no way of obviating this unless the Congress appropriates for new and necessary barracks and other buildings.

PERSONNEL.

While it is not considered that the full effect will be felt inside of three years, the adoption of a system of recruiting whereby applicants are not enlisted without a thorough reexamination at recruit depots, the establishment of recruit depots, and the organization of companies at the larger yards, have resulted in a decided improvement in the enlisted personnel of the Marine Corps; this is shown by the large reduction during the past year in desertions and in discharges by medical survey.

The present system, whereby the whole Marine Corps on home service is scattered in numerous navy yards, is neither economical nor conducive to proper training, and it is urgently recommended that the department adopt the policy of having at least one large post on each coast, eventually to be capable of housing a brigade of two regiments at war strength, with its necessary field equipment.

In this connection it is desired to invite the department's attention to the fact that the duties the Marine Corps is called upon to perform are such that it is a necessity, if the best results are to be obtained, that it be at all times upon what is practically a war footing, and that rapidity of mobilization and efficiency in training can be best obtained by the large posts suggested.

The proportion of officers to men in the Marine Corps is entirely too low, and on the expeditions during the past year, though every officer available was taken, the organizations were underofficered.

The present proportion is 1 officer (line and staff combined) to 34½ enlisted men; this is about the proper proportion for company officers of the line, but when the necessary number of staff officers and field officers of the line, officers on detached duty, sick, en route to and from foreign service, etc., are considered, the proportion is too small by at least one-third, and it is believed that the proper proportion is 45 officers to 1,000 men—that is, approximately 1 officer to 22.2 men. A properly organized regiment has 1 officer to 25 men, and as regiments are organized, with the present proportion, the situation grows worse and worse. In the second regiment sent to Cuba this year, and in the regiment sent for service in Santo Domingo, it became necessary to make the companies of approximately 127 men each and to strip many of the posts of all except 1 line officer. It is also brought to the attention of the department that the organization of expeditionary brigades has become quite frequent, and that the rank proper to the command of brigades is brigadier general, of which rank there are at present no officers in the Marine Corps.

In order that the corps may be able to meet the demands made upon it without depleting the garrisons at yards and prisons in the United States, that the work of the Advanced Base School may not be interrupted, that its system of recruit training may be carried out, and that the lack of officers may be relieved, it is recommended that the necessary representation be made to the Congress for an increase during the coming year of 49 officers and 800 enlisted men. This increase in officers, if allowed, would give 1 officer to 27.2 men, or 36¾ officers per 1,000 men, which is considerably below the number required.

Examinations are being held to fill the vacancies created in the commissioned personnel by the naval appropriation act which was approved August 22, 1912, and as soon as commissioned these officers will be assigned to the Marine Officers' School for instruction.

It is expected that the 400 additional men provided by the above act will be enlisted and the corps recruited to its authorized strength by February 1, 1913. All of this increase has been absorbed by the adoption of the policy of placing marine detachments on the smaller ships, by the commissioning of the *Wyoming*, and the establishment of disciplinary barracks at the navy yard, Puget Sound, Wash.

ENLISTED FORCE.

Gains and losses in the enlisted force during the year have been as follows:

Enlisted	4,310
Deserters rejoined	22
Prisoners restored	11
Total gain	4,343
Discharged	2,940
Died	29
Deserted	917
Retired	12
Prisoners sentenced to dishonorable discharge	173
Total loss	4,071
Net gain	272

Summary of distribution of officers and enlisted men June 30, 1912:

	Officers.	Enlisted men.
On shore duty:		
Inside United States	116	3,470
Outside United States	77	1,974
On expeditionary service	69	2,008
On board ship:		
On receiving ships	3	407
Cruising vessels	54	1,708

In addition to the above, there were 172 general court-martial prisoners sentenced to dishonorable discharge.

RETIREMENTS, RESIGNATIONS, DEATHS, ETC.

During the past year there were three retirements, three resignations, and two dismissals among the officers of the Marine Corps on the active list, and one death on the retired list.

GOOD-CONDUCT MEDALS.

During the past year 940 good-conduct medals and 183 good-conduct medal bars have been issued to men of the Marine Corps.

DEPOSITS.

The benefits of the present system of savings deposits have continued to be availed of throughout the last fiscal year, and the amount of deposits now to the credit of men of the corps shows that the spirit of thrift among the men is constantly increasing. Special instruction in regard to this privilege is given at recruit depots.

RECRUITING.

There are now 10 recruiting districts and 140 stations. The following statement shows the progress of recruiting during the fiscal year ended June 30, 1912:

	Fiscal year ending June 30—	
	1911.	1912.
Total number enlisted	4,161	4,310
Increase in enlistments, 4 per cent.		
Net desertions	1,298	917
Percentage of desertions to total borne on rolls	9.7	6.7
A decrease of desertions of 31 per cent.		
Apprehended and surrendered from desertion	140	218
An increase of apprehensions, etc., of 56 per cent.		
Dishonorable discharge, sentence general court martial	219	173
A decrease of dishonorable discharges of 21 per cent.		
Reenlisted from Marine Corps	536	729
Percentage reenlisting from Marine Corps	12.9	20.0
Total reenlistments (including those from Army)	884	998
Percentage of reenlistments	16.9	23.1
Discharges by medical survey within three months of date of enlistment	226	47
A decrease of medical surveys of 79 per cent.		
Cost per recruit, including transportation	$57.99	$61.14
Cost per recruit, excluding transportation	$38.88	$40.75

This increase in the cost per recruit is more apparent than real and is caused by the fact that under the system in vogue during previous years the number used as a divisor into the total amount spent included all of those men who deserted and were surveyed within three months after enlistment, whereas under the present system these men are classed as "elopers" or "rejected" at recruit depots and do not appear under the caption "Total enlisted." In other words, the cost per recruit in the fiscal year 1912 is a close approximation of cost per net recruit, whereas in former years the cost shown was cost per gross recruit.

This apparent increase in cost per recruit is more than offset by the large saving in pay and allowances to a smaller number of deserters, and pay, allowances, and mileage to 79 per cent less men discharged by medical survey.

The standard of recruits, both as to physique and educational requirements, has been materially bettered during the year.

At the present time the Marine Corps is short of its authorized complement by 438 men, due to the fact that on the 22d of August, 1912, the authorized enlisted strength of the Marine Corps was increased by 400 men, at which date the corps was practically at its full complement as then authorized.

The new system of recruiting and training, as outlined in last year's report, has been an unqualified success, as disclosed by the above table. Since January 1, 1912, when the new system became well established, the number of desertions to the close of the fiscal year was 420 as compared with 634 for the same period of the preceding fiscal year, a decrease of 33⅓ per cent.

By means of the finger-print system applicants endeavoring to enlist fraudulently have been, since October 1, 1911, prevented, as follows:

Formerly in Marine Corps	105
Formerly in Navy	40
Formerly in Army	25
Fraudulent applicants detected	170

Since the same date the finger-print files have been the means of detecting 82 former marines who sought to enter the Navy and 20 former marines who sought to enter the Army, claiming no prior service.

A comprehensive set of instructions governing the recruiting service has been issued, printed in neat pamphlet form.

RECRUIT DEPOTS.

In July, 1911, recruit depots were established at Philadelphia, Pa., at Mare Island, Cal., and at Puget Sound, Wash.

On August 30 the buildings occupied by the Marine Officers' School and the recruit depot at Port Royal, S. C., were turned over to the Navy for disciplinary purposes. This necessitated moving the Marine Officers' School to Norfolk, Va., and establishing recruit depots at Charleston, S. C., and Norfolk, Va.

Experience having demonstrated that the best results could not be obtained with small depots, the ones at Charleston, S. C., and at Puget Sound, Wash., were closed about June 1, 1912, all recruits on and, while the results have not been so marked on the east coast, due to lack of proper equipment at Norfolk, Va., for the number that have been accommodated, there has been a considerable reduction in expenses of transportation.

The establishment of a single large depot with proper equipment and buildings for the Eastern States would result in a decided improvement, and, once established, could be maintained at reduced per capita expense.

Neither Philadelphia, Pa., Norfolk, Va., nor Mare Island, Cal., is properly prepared to handle recruits, and the desired results can not be obtained until the Marine Corps is provided with the necessary buildings for a fully equipped recruit depot on each coast.

On the west coast Mare Island is decidedly the best location, and of all the posts on the eastern coast Norfolk, Va., furnishes the most advantages for a recruit depot. Adjacent to the Marine Corps reservation at that yard is a considerable extent of unoccupied ground belonging to the Navy, which, if utilized for the above purposes, would enable a depot to be built capable of handling all the recruits on the Atlantic coast.

It is therefore recommended that this land be assigned to the Marine Corps for this purpose and that this office be authorized to prepare the estimates for the construction of the necessary buildings for a complete depot at that post.

During the fiscal year recruits have been under instruction, as follows:

Philadelphia, Pa	906
Norfolk, Va	1,075
Charleston, S. C	486
Mare Island, Cal	502
Puget Sound, Wash	255

Owing to the urgent necessity for men for expeditionary service it has been necessary at times to send men to active service when the course at the recruit depot was only half completed. This is unfortunate, as it is believed that the desired results can not be obtained in less time than is allotted to the full course of instruction. In order, however, to meet this condition as far as possible the course as originally laid out has been changed so that by the end of the ninth week recruits are fairly well equipped for field service. When the weather will permit, the seventh, eighth, and ninth weeks are devoted to instruction in rifle firing and range practice, the whole course having been lengthened to 14 weeks.

The results obtained at the Marine Corps rifle range, Winthrop, Md., have been most satisfactory, approximately 720 having already fired the Army marksman's course with about 46 per cent of qualifications.

PHYSICAL TRAINING.

The Swedish system of physical training, as adapted by Surg. Joseph A. Murphy, United States Navy, has been in use at the recruit depot with satisfactory results. It is recommended that the system be extended to the whole service, replacing the present official system of physical exercises.

the best of physical condition, and to this end it is recomended that the policy be adopted of erecting suitable gymnasiums at the various posts not so equipped; the lack of buildings of this character is especially felt at the recruit depots.

TRAINING FOR SEA SERVICE.

The marine barracks, Naval Academy, Annapolis, Md., has been used for training men for service afloat and for assembling detachments for ships about to be put in commission, but on account of the necessity of transferring all available men to expeditionary service, it is impossible to determine the benefits derived from this system.

COMPANY ORGANIZATION.

Company organization at the larger posts has worked well, though the training deemed necessary by this office has not been possible, due to the requirements of guard duty. This office considers that the present system of guarding navy yards requires an excessive number of men, and that by the extension of the patrol system the yards can be properly guarded with a smaller number of men and more time made available for the training of officers and men in their naval and military duties.

All the organized companies on the Atlantic coast have been on expeditionary service, and the company organization, together with the adoption of a system of keeping pay-roll data in service record books, has resulted in more efficient mobilization than was possible under the old method.

SHIP'S DETACHMENTS.

During the past year the policy of placing marines on small ships has been adopted, and the size of marine detachments allotted to ships of the Navy has been standardized, the numbers being based on the types of ships and the size of the crews.

This office regrets that owing to the shortage of officers and men in some cases smaller detachments had to be provided than the department originally contemplated. It believes that the best results will obtain when there are sufficient officers and men available to assign an officer to each small detachment and to have no detachment of less than one section of 27 men.

In this connection it is recommended that officers, while serving at sea, receive the increase of 10 per cent now authorized by law for officers of the Navy, and that, if practicable, this provision be extended to include men of the Marine Corps.

TARGET PRACTICE.

Target practice has been conducted in the Marine Corps with excellent results this season. The range of the Bay State Rifle Association at Wakefield, Mass, was leased by the Marine Corps for the season, and, through the courtesy of the War Department, the Army

Island, Cal., and detachments from ships in that vicinity.

The Marine Corps rifle range at Winthrop, Md., has afforded practice to the recruits from the depots at Norfolk and Philadelphia, and the most gratifying results have been obtained with these men. Rifle practice is considered an indispensable part of the recruit's training, and the Winthrop range has been an invaluable adjunct to the large recruit depots at Norfolk and Philadelphia.

The qualifications for the target year 1912 to date are as follows:

	Officers.	Enlisted men.
Expert riflemen	15	148
Sharpshooters	14	1,059
Marksmen	1	383

By an appropriation of $7,000 the Marine Corps was enabled to extend and improve the range at Puget Sound, Wash., which now affords facilities for target practice to the command at Puget Sound and to the detachments of such ships as may be in that vicinity.

COMPETITIONS.

The competitions prescribed in General Order No. 112, Navy Department, April 26, 1911, are held whenever practicable and undoubtedly stimulate interest in target practice.

On April 6 to 8, 1912, the rifle match for the open championship of North China was held at Tien-Tsin, China. There were 215 entries from foreign troops and rifle clubs of Peking, Tien-Tsin, and vicinity. This match was won by Pvt. Chester Hendrickson, of the Marine Corps, and members of the Marine Corps took the third, fourth, fifth, sixth, and seventh places, respectively.

The International Legation Guards rifle match took place at Peking, China, on June 5, 1912, teams from the American, British, German, Holland, Russian, and Italian legations competing. The marine detachment of the American legation took first place in the team match. In the individual match the five American marines entered took the first five places. Pvt. Ray J. Cook took first place in the individual match.

MARINE CORPS RIFLE TEAM.

A rifle team squad was organized at Wakefield, Mass., on August 9, 1912, under command of Capt. Harry R. Lay. The team competed in 11 matches at Wakefield, Mass., winning 8 first places. In the latter part of August this squad proceeded to Sea Girt, N. J., for the matches of the New Jersey State Rifle Association, winning the Evans skirmish match and a number of individual matches. Considering the fact that practically all of the men were new, had had no previous experience with a rifle team, and were assembled but a short time previous to the matches, their work was excellent. No national match was held this year.

COOKS AND BAKERS.

The War Department having granted authority for the instruction of men of the Marine Corps at the Army training schools for cooks and bakers, located at Washington Barracks, D. C., and the Presidio of San Francisco, Cal., orders were issued for the detail of two men to take the course of instruction at Washington Barracks for the term beginning September 15, 1911, also the detail of two men to take the course at Presidio of San Francisco. The men on the east coast are detailed monthly, and those on the west coast, beginning October 15, 1911, bimonthly. The men selected for instruction have been taken from the various posts on the Atlantic and Pacific coasts, and the results obtained are constantly being shown by the improvement of the messes in connection with the establishing of the component-ration system which was referred to in my last Annual Report.

EXPEDITIONARY FORCES.

A provisional brigade of marines, consisting of 69 officers and 2,008 men, was assembled at Philadelphia, Pa., and Norfolk, Va., for temporary foreign tropical shore service. The First Regiment, consisting of 29 officers and 756 men, under command of Col. Lincoln Karmany, embarked on the U. S. S. *Prairie*, at Philadelphia, Pa., May 23, 1912. The Second Regiment, consisting of 40 officers and 1,252 men, under command of Col. James E. Mahoney, was distributed on the following vessels of the United States Atlantic Fleet, which sailed on May 25, 26, and 27, 1912: U. S. S. *Georgia*, *Minnesota*, *Mississippi*, *Missouri*, *Nebraska*, *New Jersey*, *Ohio*, *Rhode Island*, and *Washington*. Col. George Barnett assumed command of the First Regiment on June 7, 1912, relieving Col. Lincoln Karmany, who assumed command of the First Provisional Brigade, consisting of the First and Second Regiments. With the exception of a battalion of two companies retained at Camp Meyer, Cuba, the officers and men who composed this brigade returned to the United States on July 9 and 24 ,and on August 5, 1912, and were sent back to the posts from which they were originally drawn.

Early in August a battalion of marines, consisting of 10 officers and 338 men, was transferred from Panama to Nicaragua for duty. A provisional regiment of marines, consisting of 29 officers and 750 men, under command of Col. Joseph H. Pendleton, was assembled, embarked, and sailed from Philadelphia on the U. S. S. *Prairie* on August 24, 1912, for service in Nicaragua. On September 27, 1912, a regiment of 28 officers and 767 men, under command of Col. Franklin J. Moses, was assembled, embarked, and sailed from Philadelphia on the U. S. S. *Prairie* for duty in Santo Domingo.

CAMPAIGN BADGES.

Since the date of last Annual Report the following campaign badges and bars have been issued to officers and men of the Marine Corps:

Civil War campaign badges and bars	26
Spanish campaign badges and bars	12
China campaign badges and bars	14
Philippine campaign badges and bars	21
Army of Cuban Pacification badges and bars	155

ADVANCED-BASE SCHOOL.

In July, 1912, this office issued instructions covering the work to be carried on at this school, the objects being:

(*a*) To train the officers and men in the handling, installing, and using to the best advantage in action of such advanced-base matériel as may be provided.

(*b*) To investigate and determine what matériel is needed for, and is best suited to, advanced-base work. This includes number, caliber, and types of guns; quantities and kinds of ammunition; number and types of mines; types of gun platforms; types of magazines; automobile and torpedo defense; water and land transportation; and in general the number and types of all the various appliances required to transport, install, and fight the matériel provided for the defense of advanced bases.

(*c*) Theoretical study by officers of such military and naval subjects as pertain to the selection, occupation, and attack and defense of advanced-base positions, or to expeditionary service in general, including the services of communication, supply, and sanitation. The course of one year was divided into two parts:

(1) November 1 to April 30, inclusive: To be devoted to theoretical work, with such practical exercises as the weather would permit and as could be carried on indoors.

(2) May 1 to October 31: To be devoted to practical work, with such theoretical work as might be considered desirable. During this period the advanced-base battalion should be trained in field maneuvers, camping, handling of heavy weights, mounting and dismounting of guns, and, if practicable, embarkation and debarkation, under conditions as nearly similar as practicable to those which would probably exist in actual service.

A careful study has been made of all the ordnance and other matériel required for an advanced-base outfit, and a special report has been made to the department on this subject, together with a report on the amount of stowage space that would be required on board a transport.

While the types of guns required have been determined, no satisfactory platform has as yet been devised, though experiments are now being carried on to this end. Platforms constructed in accordance with plans submitted were tried out at the Naval Proving Grounds, Indian Head, Md., but were not satisfactory.

Considerable work has been done looking to the improvement of the naval-defense mine, and experiments will be carried on as soon as practicable to determine the utility of the recommendations made.

All the advanced-base matériel on the Atlantic coast has been assembled at Philadelphia, Pa., but little of it would be of use in case of hostilities.

It is recommended that, as soon as practicable, the various pieces of ordnance required for an advanced base be assembled. The Bureau of Ordnance has allotted $50,000 to be expended during the current fiscal year for the purchase of accessories. Before all this matériel is assembled it will be necessary to have a special storehouse built for the outfit, as rapid embarkation will require that the matériel be placed in the storehouse in accordance with a well-thought-out plan of stowage. This storehouse should be of sufficient size to permit indoor handling of heavy weights during the winter months.

A class of officers was assembled prior to the 1st of November, 1911, and the prescribed theoretical course was carried out. In May, owing to the urgent necessity for an expeditionary force, the officers and men attached to the Advanced Base Battalion were transferred to foreign service, and are still absent from the United States.

The proper training of officers and men in advanced-base work can only be accomplished through consistent, progressive work, carried on without interruption, and it is believed that the desired results can not be obtained until the Marine Corps has a sufficient number of officers and men to enable it to provide the ordinary expeditionary force without calling upon the force engaged in the advanced-base training. So far it has not been possible to bring the Advanced Base Battalion to a greater strength than approximately 300 men.

To install an advanced base outfit and properly defend it will require a brigade of two regiments of approximately 1,300 officers and men each; one regiment being for fixed defenses and the other for mobile defenses, each to act as a reserve for the other. The force assigned to the fixed defenses should be the one stationed at the advanced base school, and this office desires to represent to the department its belief that a sufficient number of officers and men should be provided to enable the fixed defense regiment to be brought to its full strength at the earliest practicable date.

AVIATION.

In view of the great benefit to an advanced base force that might result from trained aviators, two officers and one man of the Marine Corps have been under instruction in aviation at the United States Naval Academy, Annapolis, Md., and it is hoped that during the coming year this number may be considerably increased.

TRANSPORTS.

The attention of the department is invited to the urgent necessity for properly designed and fitted-out transports for use of the Marine Corps. At present the only ship available on the Atlantic coast is the U. S. S. *Prairie*, and while 750 to 800 officers and men can be transported on this ship for short trips, yet this can be done only by most insanitary crowding, the extent of which can be realized only by those who have served on board under those conditions. Transports for use of the Marine Corps are required for:

(*a*) Expeditions.
(*b*) In connection with peace training, in advanced base work.
(*c*) Relief of men on foreign service.

MARINE OFFICERS' SCHOOL.

The operations of the Marine Officers' School, which on August 30, 1911, was moved from Port Royal, S. C., to Norfolk, Va., were carried on until the end of May, 1912, when, owing to expeditionary service, the class at the school was graduated and transferred to active service.

During the past year the officers under instruction were required to live in tents and were subject to a great deal of discomfort, and carried on their work under very trying circumstances, particularly during the severe weather of the winter months. In view of the most beneficial results derived from requiring all officers appointed to the Marine Corps to take the course of instruction laid down, it is earnestly recommended to the department that the necessary steps be taken to provide at the navy yard, Norfolk, Va., in connection with the Marine Barracks, a suitable building, capable of accommodating, at its full capacity, a class of 30 officers, together with the necessary class and lecture rooms. In this connection it is desired to renew the recommendation that hereafter, so far as practicable, officers of the Marine Corps be appointed from graduates of the United States Naval Academy, and that the necessary steps be taken to amend the present law so that graduates may be appointed to the Marine Corps upon graduation.

It is further recommended that in case of civilian appointments the age limit be changed so that appointments will be limited to those not less than 19 years nor more than 23 years of age; that all appointments be on probation for a period of two years; and that no ex-midshipman who has been dropped or dismissed from the Naval Academy shall be commissioned in the Marine Corps prior to the graduation of the class to which he belonged.

INSTRUCTION OF OFFICERS AT ARMY SCHOOLS.

Two field officers of the Marine Corps completed the course of instruction at the Army War College for the school year ended June 30, 1912. Two field officers took the course of instruction for field officers at Fort Leavenworth, Kans., during the months of January, February, and March, 1912. These two officers have been detailed to take the course of instruction at the Army War College, Washington, D. C., for the school year beginning September 1, 1912.

Two captains of the Marine Corps graduated from the Army School of the Line, Fort Leavenworth, Kans., on June 21, 1912, and two other captains have been detailed to take the course during the coming year.

LANGUAGE STUDIES OF MILITARY ATTACHÉS.

Four officers of the Marine Corps are detailed as naval attachés and are under instruction as students of foreign languages, as follows: Two at the American Embassy, Tokio, Japan, and two at the American Legation, Peking, China. From reports received at this office it is understood that they are making very satisfactory progress.

MATÉRIEL.

During the past year the money appropriated by Congress for the maintenance of the Marine Corps has been judiciously expended. The appropriation "Repair of barracks" has been utilized in making such minor repairs and alterations as were necessary to keep the barracks in proper condition for habitation. As has been the case in past years, a great drain has been made on this appropriation because of the condition and requirements of the older barracks.

The report of the officer in charge of the quartermaster's department shows that minor repairs and improvements have been made during the past year at all the stations.

The policy adopted by the department of having the Bureau of Ordnance, United States Navy, furnish to the Marine Corps all ordnance material other than small-arm ammunition and equipment will result in a decided improvement in the preparedness of the Marine Corps for active service and for service on board ship.

CHARLESTON, S. C.

Barracks and quarters have been provided with screens, and new plumbing, lighting, and heating fixtures have been installed. The old barracks building was overhauled and placed in use as a dormitory for recruits. This post was visited by a hurricane in August, 1911, but the damage was slight, amounting to about $350.

DEPOT OF SUPPLIES, PHILADELPHIA, PA.

The present building occupied by the depot of supplies in Philadelphia, Pa., is inadequate to the demands being made upon it and it has become necessary to rent suitable space in a building located about one-quarter of a mile from the depot, for which an annual rental of $2,550 is paid. It is from this depot that all expeditionary forces on the Atlantic coast are fitted out, and as funds become available it is considered necessary to increase the supplies carried at this depot to the amount required to fully equip 3,000 men.

An item of $175,000 was included in the public works estimates of the quartermaster's department for 1914 for the purpose of purchasing a site and erecting an addition to the present building for the use of the depot, and it will be in the interests of economy as well as efficiency to secure this appropriation for the object stated.

DEPOT OF SUPPLIES, SAN FRANCISCO, CAL.

The importance and work of the depot of supplies in San Francisco is steadily increasing. The report of the depot quartermaster in charge at that point shows that during the past year the increase in the value of stock received was $103,180.49. The disbursements exceeded the disbursements of the previous year by $17,681.23.

The building formerly occupied by this depot was neither fireproof nor adequate in size, and about September 1, 1912, the depot was moved to 36 Annie Street, San Francisco, and now occupies a new modern, fireproof structure of adequate size.

There are, at present, in this depot, stores for an expeditionary force of approximately 500 men. These will be increased immediately to the amount necessary for 750 men, and, as funds become available, to that necessary for a complete regiment.

KEY WEST, FLA.

These headquarters have recommended that the unexpended balance of the special appropriations asked for the erection of officers' quarters at Pensacola, Fla., under acts approved March 22, 1907, and May 13, 1908, be transferred for use in the erection of suitable appropriation act approved August 22, 1912, and plans are now being prepared for one house in accordance therewith.

MARE ISLAND, CAL.

This has always been the principal station of the Marine Corps on the Pacific coast, and it is expected that its importance will increase in the future, as it is understood to be the policy of the department that an advance-base force will eventually be assembled there.

The present buildings are old, insanitary, and with the exception of the barracks and officers' quarters, are of a temporary nature, and are entirely inadequate for the command that is now necessary to be quartered at this post. At present approximately 500 men are living in tents. This method of housing men is most expensive, owing to the fact that tentage rapidly deteriorates. With a view of reducing expense under this head, until Congress provides permanent facilities, 13 small, temporary, frame buildings, for the accommodation of 100 men, were erected as an experiment. While this is an improvement over the tentage, it is a most unsatisfactory method of providing shelter.

The grounds, walks, etc., at this post have been extended and otherwise improved, and construction has been authorized of a central heating plant.

The recruit depot on the Pacific coast has been established at this station, and in view of the lack of facilities and proper buildings at this post, it is strongly recommended that representation be made to Congress as to the urgent necessity of providing suitable buildings for a complete post at that place.

MARINE CORPS RIFLE RANGE, WINTHROP, MD.

More or less extensive improvements have been made at this station from time to time during the year out of the appropriation made by Congress of $20,000 in the act approved March 4, 1911. These were made under the direction of the Bureau of Yards and Docks under the head of "Public works." The Quartermaster's Department has erected a new bakery and installed proper fire-fighting facilities, the chemical fire engine formerly used at Newport, R. I., having been transferred to Winthrop when the former post was abandoned. Window and door screens have been provided for the barracks and other buildings, with the result that there has been practically no malaria during the last year.

NEW YORK, N. Y.

The commanding and junior officers' quarters at New York were connected with the central Marine Corp's heating plant at that post, and various minor improvements were made to the barracks.

NORFOLK, VA.

Officers' quarters sufficient to accommodate 10 additional officers, for which special appropriation was provided in the act approved

June 24, 1910, amounting to $47,500, were erected under contract with R. H. Richardson & Son, and will be ready for occupancy in a short time. One of these houses is intended for eight bachelor officers, and both of the buildings have been connected with the yard sewerage and lighting systems. The parade ground has been greatly improved and cement walks were laid. Bids will be opened in the near future for a new sump pit at this station.

PHILADELPHIA, PA.

In the act approved June 24, 1910, Congress appropriated the sum of $70,000 for the erection of one commanding officer's, one double junior officers', and one bachelor officers' quarters. The contract for the erection of these quarters was awarded on July 31, 1911, and they are now about completed and will be ready for occupancy as soon as furniture is installed. The water, sewer, and electric lighting systems for the Marine Corps' buildings have been connected with the yard service. The grounds around the buildings are being graded and this work will be continued from time to time when money is available from the regular appropriations. In the naval appropriation bill for the fiscal year beginning July 1, 1912, there is a provision for erecting an additional barracks building at this post at a cost not to exceed $175,000, and preliminary plans and specifications for this building are now being prepared by the Bureau of Yards and Docks, Navy Department, on suggestions furnished by the Quartermaster's Department of the Marine Corps.

PORT ROYAL, S. C.

This station, including the buildings and public property belonging to the Marine Corps, was formally turned over to the Navy Department and is now used as a naval disciplinary barracks, and the expense of maintenance is borne by the Navy Department.

PUGET SOUND, WASH.

In the act approved March 3, 1909, provision was made for a new barracks building and a contract entered into for its erection on May 29, 1911, at the contract price of $135,428. This building was turned over to the Marine Corps by the contractor and accepted May 30, 1912, four months prior to the date specified in the contract. A large amount of grading and clearing has been found necessary owing to the fact that the plat of ground where the barracks is located was practically a wilderness. This work is being done as rapidly as the appropriations will permit. The old barracks building at this station has been turned over to the Navy for use as a disciplinary barracks, and equipment for about 120 men was left therein at the time of transfer. The new officers' quarters have been provided with the necessary furniture and screens.

CAMP ELLIOTT, PANAMA.

The buildings and grounds at this post are in a satisfactory condition, considering the age of the old French houses. Considerable damage was done to the buildings in May, 1912, by a severe hurricane, and repairs were made out of current appropriations. No unusual repairs or improvements were made except what was necessary for the upkeep of the buildings and grounds, which is considerable in the course of a year, owing to the severe climatic influences of the tropics. In view of the duty assigned the Navy in connection with the frequent disorders occurring in Central American and West Indian waters, it is considered very desirable that a considerable marine force, fully equipped and properly trained for expeditionary service, be retained on the Isthmus. As soon as the canal is flooded it will be necessary to abandon the site now occupied by the Marine Corps, and during the past year a very desirable site on the Isthmian Canal Zone has been allotted for the use of the Marine Corps; and it is earnestly recommended that the necessary steps be taken to prepare the new site for occupancy and to erect the necessary buildings. In this connection it is suggested to the department that the work of construction will be considerably less expensive prior than after the canal is opened.

On June 30, 1912, the strength of the command at Camp Elliott was 14 officers and 381 men, a shortage of 1 officer and 49 men. On August 6, 1912, a battalion consisting of 10 officers and 338 men was transferred to Nicaragua for duty.

GUAM.

The marine command at Guam consists of 5 officers and 104 men, and from reports on file at these headquarters it appears that the health of the command has been excellent during the past year. As at many other posts of the corps, the barracks accommodations are not sufficient for the number of men required at the post. The commandant of the station has recommended that the detachment be increased by 1 officer and 50 men, but no officer or men are available for this increase.

GUANTANAMO.

In July, 1912, this command was increased to 2 officers and 100 men.

Minor repairs have been made to the buildings temporarily occupied by the Marine Corps at this station, including painting throughout, and doors and windows have been screened. No definite action has as yet been taken toward expending the $10,000 provided in the act approved March 2, 1907, for the erection of a marine barracks at Guantanamo.

In view of the frequency with which Deer Point is used as a camp site for the Navy or Marine Corps, it is recommended that as soon as practicable the wharf and roads be improved, that storehouses be erected, and the water supply increased.

HONOLULU, HAWAII.

In the act approved March 3, 1909, Congress appropriated $185,000 for barracks and quarters at the naval station, Pearl Harbor, Hawaii. Under date of March 19, 1912, after due competition, contract for the construction of these barracks and quarters was awarded to the

June 17, 1913.

On June 30, 1912, the strength of the marine battalion at Honolulu consisted of 7 officers and 164 men, a shortage of 1 officer and 47 men, and when the new barracks are completed it is considered that this force should be considerably increased.

PEKING, CHINA.

Reports show that the condition of affairs in this command is most satisfactory. Various minor repairs and improvements have been made in the barracks and quarters, and the legation defenses have been increased.

Owing to the conditions of unrest prevailing in China during the past year, it became necessary to increase the regular legation guard by one company. It is now composed of 8 officers and 213 men, a shortage of approximately 18 men.

PHILIPPINES.

The strength of the marine brigade in the Philippines on June 30, 1912, was 39 officers and 1,080 men, a shortage of 10 officers and 76 men.

Owing to the revolution in China, on October 24, 1911, a battalion of 15 officers and 362 men, under command of Maj. Philip M. Bannon, United States Marine Corps, was embarked on the U. S. S. *Rainbow* at Olongapo, and on December 7, 1911, an additional company, consisting of 3 officers and 90 men was added to this battalion.

The commanding officer of the marine brigade in the Philippines, in his annual report, states as follows:

> It is understood that the *Rainbow* is held at this station primarily for expeditionary purposes and for use in connection with the advanced-base outfit, but that vessel is not large enough to accommodate an expeditionary force of a considerable size, and she has little or no sleeping accommodations for troops.

As one of the principal duties of the marine brigade in the Philippines is to serve, in case of necessity, as an expeditionary force in Asiatic waters, it is recommended that, if practicable, this condition be rectified, as it may be necessary for the expeditionary force to remain for months at a time on board the transport.

Minor repairs and improvements have been made to the barracks and quarters at Cavite and Olongapo so far as money available for the purpose permitted; but, as stated in my last annual report, the accommodations for both officers and men are far from what they should be in order to insure the health and comfort of the commands.

In connection with this the department's attention is invited to the fact that the expansion of the naval station at Olongapo will probably require in the near future that the site now occupied by the Marine Corps buildings be vacated for yard purposes, which will necessitate the erection of buildings capable of housing a regiment with its stores and one advanced-base outfit on the site originally allotted to the Marine Corps.

Marine Corps. In view of the desirability o
that if the Marine Corps does not avail itse
acquire it, the allotment will probably be v
assigned to other purposes, an item of $200,
this site and the erection thereon of a hea
depot of supplies has been included in the p
the Quartermaster's Department for the fisca
1913.

WITHDRAWAL OF MARINE GA

In accordance with the orders of the depar
sons at Sitka, Alaska, and the naval hospital,
withdrawn, the former on March 18, 1912,
9, 1912.

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